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# HELMINTHOLOGICAL ABSTRACTS

*incorporating*

BIBLIOGRAPHY OF HELMINTHOLOGY

For the Year 1941.



IMPERIAL BUREAU OF AGRICULTURAL PARASITOLOGY  
(HELMINTHOLOGY)

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# HELMINTHOLOGICAL ABSTRACTS

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FOR THE YEAR 1941.

Vol. X, Part 5.

## 334—Acta Medica Scandinavica.

- \*a. HIRVONEN, M., 1941.—“Serumeisenuntersuchungen an *Bothriocephalus latus*- und *Taenia saginata*-Patienten.” 108, 63-72.

## 335—Acta Medica Scandinavica. Supplementum.

- a. HERNBERG, C. A., 1941.—“On the occurrence of the intrinsic factor in the gastric juice in pernicious botriocephalus anaemia.” No. 123, pp. 255-262.

## 336—Állatorvosi Lapok.

- \*a. STRANZ, I., 1941.—“Sertésmájmetélykór és gyógyítása.” 64 (16), p. 108.  
(336a) [Treatment of liver-fluke disease in pigs.]

## 337—American Journal of Nursing.

- \*a. BERCOVITZ, Z. & CHRISTENSEN, M. E., 1941.—“Trichinosis.” 41, 1389-1392.

## 338—American Journal of Ophthalmology.

- a. QUEVEDO, A., 1941.—“Ocular onchocerciasis.” 24 (10), 1185-1189.

## 339—American Journal of Veterinary Research.

- a. HOBMAIER, M., 1941.—“Newer aspects of the lungworm (*Crenosoma*) in foxes.” 2 (4), 352-354.  
b. ALICATA, J. E. & SWANSON, L. E., 1941.—“Observations on the longevity of the liver fluke, *Fasciola gigantica*, in cattle.” 2 (5), 417-418.

(339a) Hobmaier shows that *Crenosoma mephitis*, a lungworm of the skunk, is infective to young puppies and to foxes, in which animals it may cause a fatal verminous broncho-pneumonia. Species of slugs and snails are the normal vectors but garter snakes, which live on these molluscs, may harbour the infective stage of the lungworm in nodules in the mucosa of the intestine. These larvae remain infective to the normal definitive hosts. Larvae passed in faeces normally burrow into the soil and they can retain their vitality after being dry for several weeks. As *C. mephitis* and *C. vulpis* are closely related it is possible that some of these observations may also apply to *C. vulpis*.  
P.A.C.

(339b) Five young steers of weaning age were each given 800 cysts of *Fasciola gigantica*. Most of the flukes were eliminated by the end of the first year but some survived for at least 3 years and 4 months.  
R.T.L.

## 340—Anais da Faculdade de Medicina do Recife.

- \*a. COELHO, B. & MARQUES, C., 1941.—“Contribuição ao estudo da esquistosomose de Manson.” 6, 5-42.  
\*b. MARQUES, C., 1941.—“Um novo caso de ascaridiose hepática.” 6, 43-52.  
\*c. FERNANDES, M. & LAPA, R., 1941.—“Sobre um caso de esquistosomose de Manson com localização ovariana.” 6, 53-59.

## 341—Anales del Ateneo de Clínica Quirúrgica.

- \*a. MORADOR, J. L. & MINETTI, R. I., 1941.—“Quiste hidático de la glándula mamaria; una nueva observación.” 7, 405-413.

\* Titles so marked throughout this number have not been seen in the original.



## 342—Anales de la Escuela Nacional de Ciencias Biológicas.

- a. HOFFMAN, W. A., 1941.—“The distribution of *Schistosoma mansoni* in the western hemisphere.” 2 (1940) (1), 89-90. [Also in Spanish pp. 91-93.]
- b. LORENZANA, L. R., 1941.—“La onchocercosis.” 2 (1940) (2/3), 285-330. [English and German summaries p. 329.]

(342a) Hoffman points out that while *Schistosoma mansoni* has so far not obtained a footing in Mexico, steps should be taken to prevent the introduction both of definitive and intermediate hosts.

R.T.L.

(342b) In the course of a comprehensive account of human onchocerciasis, based on 10 years' experience in the endemic Chiapas region of Mexico, Lorenzana points out that during the 1931/32 campaign the majority of 3,421 nodules extirpated from 1,000 patients were distributed as follows: head, 2,711; iliac crests, 283; ribs dorsally, 168; spine, 136. In all cases they are practically excluded from the anterior surface of the body i.e. they are restricted to parts of the body in contact with the bed during repose. These are the predilection sites of the prevalent Cimex, and there may be a chemotactic reason for the association. Pathology is described (largely by quotations) and there are short sections on diagnosis, prognosis, and prophylaxis.

B.G.P.

## 343—Anales de la Facultad de Medicina de Montevideo.

- \*a. JAUREGUY, M. A. & SOTO, J. A., 1941.—“Alergia hidática pulmonar; síndrome de condensación pulmonar alérgico hidático; estudio experimental, clínico y radiológico.” 26, 639-670.
- \*b. SCHROEDER, A. H., 1941.—“Diagnóstico del quiste hidático cerebral y su tratamiento.” 26, 793-820.

## 344—Anales del Instituto de Biología.

- a. BRAVO HOLLIS, M., 1941.—“Revision de los generos *Diplodiscus* Diesing, 1836 y *Megalodiscus* Chandler, 1923 (Trematoda: Paramphistomoidea).” 12 (1), 127-146; (2), 643-661. [English summary pp. 659-660.]
- b. CABALLERO Y C., E. & CERECERO, C., 1941.—“Una nueva especie de *Polystoma* (Trematoda: Polystomatidae) parásito de la vejiga urinaria de *Hyla baudinii* (Dum. y Bibr.).” 12 (2), 615-621. [English summary p. 621.]
- c. CABALLERO Y C., E., 1941.—“Trematodos de las ranas de la Ciénaga de Lerma, Mex. I.” 12 (2), 623-641. [English summary pp. 639-640.]

(344a) The genera *Diplodiscus* and *Megalodiscus* are revised and many of the species are redescribed. Two differential tables are given for 6 species of *Diplodiscus* and 5 species of *Megalodiscus* recognized by the author. The paper includes *M. rankini* n. sp. from *Triturus viridescens*.

R.T.L.

(344b) *Polystoma naevius* n. sp. from *Hyla baudinii* is closely related to *P. nearcticum* found in other North American *Hyla*.

R.T.L.

(344c) Several known species of trematodes have been found in frogs of Mexico for the first time. In addition *Halipegus lermensis* n. sp. and *Haematoloechus macrorchis* n. sp. both from *Rana montezumae* and *R. pipiens* are described.

R.T.L.

## 345—Anales de la Universidad de Santo Domingo.

- \*a. PIMENTEL IMBERT, M. F., 1941.—“La *Hymenolepis nana* en nuestra República.” 5, 54-57.

## 346—Annales de Parasitologie Humaine et Comparée.

- a. GALLIARD, H. & NGU, D. V., 1941.—“Une nouvelle espèce d'*Eurytrema*, *E. tonkinense* n. sp. parasite du pancréas des bovidés.” 18 (4/6), 187-191.
- b. DESPORTES, C., 1941.—“*Dirofilaria repens* Railliet et Henry 1911 possède dix papilles céphaliques: huit submédianes et deux amphides.” 18 (4/6), 192-197.
- c. DESPORTES, C., 1941.—“Sur un *Hastospiculus* parasite du crotale.” 18 (4/6), 198-208.
- d. GALLIARD, H., 1941.—“Recherches sur le mécanisme de la transmission des filaires par les culicidés.” 18 (4/6), 209-214.



- e. FLORESCU, B., 1941.—“*Arhythmorhynchus anser* n. sp., nouvel acanthocéphale parasite de *Larus argentatus cachinnans* (Pontop.) sur le littoral roumain de la Mer Noire.” 18 (4/6), 215-219.

(346a) Galliard & Ngu describe *Eurytrema tonkinense* n. sp., a parasite of the pancreas of bovines in Hanoi. It is a larger worm than *E. pancreaticum*, with the ventral sucker in the middle of the body. The testes are large and deeply lobed. The ovary also is lobed and the vitellaria extend anteriorly beyond the middle of the body. P.A.C.

(346b) Desportes has re-examined specimens of *Dirofilaria repens* and describes 10 cephalic papillae of which 8 are sub-median. The form of the cap is distinctive, while morphologically it resembles *Dirofilaria conjunctivae*. P.A.C.

(346c) Desportes has examined a large filariid worm from the subcutaneous tissue of *Crotalus terrificans* which he believes to be *Hastospiculum onchocercum* var. *major*. P.A.C.

(346d) Galliard has examined the method by which infective filariid larvae leave the insect host. They are stimulated to activity at the moment that the proboscis flexes in readiness for a meal. They are liberated even when the insect is fed on sugar solution, and if the temperature is lowered they survive for a considerable period. Massive infections can bring about rupture of the insect but under lighter infections longevity of the insect is not affected. P.A.C.

(346e) Florescu describes *Arhythmorhynchus anser* n. sp., an acanthocephalan parasite of *Larus argentatus cachinnans* in the district of Constanza, Rumania. The sexes are approximately equal in size, in which respect this species is distinctive among Acanthocephala. It resembles *A. frassoni* in many ways but differs in the distribution of the cuticular spines. The neck is a distinctive feature bearing a large swelling distally which is most obvious dorsally. P.A.C.

### 347—Annales de la Société Belge de Médecine Tropicale.

- \*a. BERGHE, L. VAN DEN, 1941.—“Recherches sur l'onchocercose au Congo belge. Ier mémoire. La transmission d'*Onchocerca volvulus* par les simulies.” 21 (1), 63-76.  
 \*b. BERGHE, L. VAN DEN, 1941.—“Recherches sur l'onchocercose au Congo belge. IIe mémoire. Les vers adultes et leur localisation chez l'homme.” 21 (2), 167-187.  
 c. BERGHE, L. VAN DEN, 1941.—“Recherches sur l'onchocercose au Congo belge. IIIe mémoire. Les aspects cliniques de l'onchocercose humaine.” 21 (3), 261-291.

(347a) Van den Berghe finds that *S. damnosum* is the principal species of *Simulium* which bites man in the Congo. From 7.3 to 18 % of captured *Simulium* are infested with *Onchocerca*, compared with 5% of the American species, and this makes control of onchocerciasis an almost insoluble problem. In determining the natural infestation rate, it is important to capture *Simulium* biting an uninfested subject, or the rate will be artificially raised. [From an abstract in Zbl. Bakt., I. Abt. Ref., 141, p. 498.] B.G.P.

(347b) Van den Berghe has shown from two autopsies that *Onchocerca volvulus* can occur as adults unencapsuled in nodules: this explains the fact that in the Congo the microfilarial index is higher than the nodule index. 88% of infested Congo natives show nodules in the lower parts of the body, whereas Europeans have them most often in the upper parts: this localization is associated with the sites of *Simulium* bites. Nodule formation is a defensive host-reaction leading ultimately to the death and calcification of the *Onchocerca*. [From an abstract in Zbl. Bakt., I. Abt. Ref., 141, p. 498.] B.G.P.

### 348—Annali d'Igiene.

- \*a. SAGGESE, S., 1941.—“L'anchilostomiasi in Provincia di Campobasso.” 51, 177-183.  
 \*b. STARKOFF, O., 1941.—“Un nuovo composto colorante neutro e sue applicazioni in istopatologia e in parassitologia.” 51, 259-269.

### 349—Annali di Patologia Tropicale e Parassitologia.

- \*a. ROETTI, C., 1941.—“Nematodirinae parassita della capra. Nuova specie.” 2, 244-249.  
 \*b. ROETTI, C., 1941.—“Un elminto del genere *Ostertagia* parassita degli ovini e caprini. Nuova specie.” 2, 251-256.



(349a) A new species from the goat is named *Paramecistocirrus dimorphus* n. g., n. sp. It is differentiated from *Mecistocirrus* by the fact that the two spicules are different. [From an abstract in Jber. Vet.-Med., 69, p. 115.] R.T.L.

(349b) A species of *Ostertagia* of greater length than those already named is reported from goats and sheep in Abyssinia. It is therefore called *Ostertagia elongata* n. sp. [From an abstract in Jber. Vet.-Med., 69, p. 117.] R.T.L.

### 350—Annals of Internal Medicine.

- a. ATTWOOD, C. J., SARGENT, W. H. & TAYLOR, F., 1941.—“Echinococcus cyst of the heart; report of a case.” 15 (6), 1109-1115.

### 351—Archiv des Vereins der Freunde der Naturgeschichte in Mecklenburg.

- \*a. ERHARDT, A., 1941.—“Kommt in Rostock die Hauskatze als Infektionsquelle für die Echinokokkenkrankheit in Frage? Zugleich ein Beitrag zur Helminthenfauna Rostocker Katzen.” 15, 5-8.

(351a) Erhardt has examined 64 adult cats in Rostock and concludes that the part played by these animals in the spread of hydatid infection is negligible. Other helminths found are listed, and the absence of *Ancylostoma caninum* and *Opisthorchis felinus* is noted. [From an abstract in Zbl. Bakt., I Abt. Ref., 141, p. 128.] A.E.F.

### 352—Archives de l'Institut Pasteur de Tunis.

- a. JOYEUX, C. & BAER, J. G., 1941.—“Le cycle évolutif de *Szidatia joyeuxi* (Hughes, 1929). Trématode : Strigeida.” 30 (3/4), 279-286.  
b. BAUGÉ, R., 1941.—“Sur un foyer de bilharziose vésicale dans le sud tunisien.” 30 (3/4), 291-301.

(352a) Joyeux & Baer re-investigate the life-cycle of *Szidatia joyeuxi* and give experimental proof of the first and second intermediate hosts. Naturally infected snails (*Melanopsis tunetana*) from an oasis in Tunisia shed a “vivax” type of cercaria, which is distinct from *Cercaria vivax* [= *Prohemistomum vivax* (Sons.) Azim], formerly confused with the present species. These cercariae penetrated uninfected *Rana esculenta*, producing metacercarial cysts in the muscles (chiefly of the hind legs); one *Hyla arborea* was also infected experimentally. The cysts were fed to *Tropidonotus viperinus* in which young adults were found after 9 days, agreeing in all respects with those found in the same host at Tozeur, and in *T. natrix persa* at Gafsa, in Tunisia. Of the developmental forms of *S. joyeuxi*, the miracidium alone remains to be described. [See also below No. 442a.] N.G.S.

### 353—Archives of Surgery.

- a. ARCE, J., 1941.—“Hydatid disease (hydatidosis): hydatid cyst of the lung.” 43 (5), 789-802.

### 354—Archivio Italiano di Scienze Mediche Coloniali e di Parassitologia.

- \*a. MURO, P. DE & SCALFI, L., 1941.—“Contributo allo studio della tricocefalosi.” 22, 385-406.

### 355—Archivos de Pediatría del Uruguay.

- \*a. SALDUN DE RODRIGUEZ, M. L., SOTO, J. A. & GIAMPIETRO, J., 1941.—“Cisticercosis cerebral y muscular.” 12, 549-567.

### 356—Archivos de la Sociedad Argentina de Anatomía Normal y Patológica.

- \*a. FERNANDEZ SARALEGUI, A., 1941.—“Quiste hidatídico del corazón.” 3, 173-179.

### 357—Archivos Uruguayos de Medicina, Cirugía y Especialidades.

- a. GRAÑA, A. & SCHENONE, B. H., 1941.—“Eosinofilia del líquido cefalo-raquídeo por cisticercosis cerebral.” 19 (2), 135-145.

## 358—Archivos Venezolanos de Puericultura y Pediatría.

- \*a. CASTILLO, C., 1941.—“Datos acerca de la ‘parasitosis intestinal’ en los lactantes y pre-escolares de Maracaibo.” 3, 423-426.
- \*b. GONZÁLEZ, A. G., 1941.—“Acerca del tratamiento de la parasitosis intestinal durante el embarazo, en el servicio de higiene materno-infantil de San Cristóbal.” 3, 504-507.
- \*c. FLORES CHACÍN, G., 1941.—“Algunas consideraciones sobre el tratamiento de las anemias (Necator).” 3, 575-588.

## 359—Arquivos de Cirurgia Clínica e Experimental.

- \*a. MATTAR, E. & CHAPCHAP, A., 1941.—“Coração na ancilostomose; ‘estudo da fisiopatologia circulatória nas anemias’.” 5 (Supplement), 37-96.
- \*b. PINTO VIEGAS, A., 1941.—“Tratamento clínico dos bócos; a propósito de um caso.” 1941 (Special number), 324-328.
- \*c. PEREIRA DE ARAUJO, O., 1941.—“Tratamento da teníase pela via duodenal.” 1941 (Special number), 945-950.

## 360—Arquivos do Instituto Biológico. São Paulo.

- \*a. PEREIRA, C. & CUOCOLO, R., 1941.—“Estudios sobre ‘Temnocephalidae Monticelli 1899’ com estabelecimento de dois novos generos australianos e descrição de duas novas especies entoparasitas.” 12, 101-127.

## 361—Australian Museum Magazine.

- a. POPE, E. C., 1941.—“War on the liver fluke.” 7 (10), 361-362.

(361a) In a popular account of liver-fluke Pope recommends treating streams and marshes with bluestone at 25 to 30 lb. per acre, diluted with 4 times its bulk of sand, and scattered by means of a mechanical seed-broadcaster which is wheeled along the stream bank. The operator wears goggles.

B.G.P.

## 362—Bahia Medica.

- \*a. FIGUEIREDO, J. DE, 1941.—“Estudo comparativo entre varios metodos de ovelmintoscopia.” 12, 181-186.

## 363—Bergcultures.

- a. FLUITER, H. J. DE & MULHOLLAND, J. J., 1941.—“Gegevens, verkregen bij het onderzoek naar de waardplanten van *Tylenchus coffeae*.” 15 (47), 1588-1593.

(363a) Fluiter & Mulholland present the results of an investigation to determine the host plants of *Tylenchus coffeae* (*Anguillulina pratensis*) in Java. The tested plants were compared with coffee as to the numbers of the parasite (adults and larvae) present in the roots and were grouped under 3 categories as follows:—(i) non-susceptible, (ii) slightly susceptible and possibly serving as a host plant, (iii) susceptible and serving as a host plant to a greater or less extent. The results are set out in useful tables where the plants are grouped under 3 heads, (i) cultivated plants, (ii) food plants, (iii) shade plants, green manure plants, cover crops and weeds. Several of the plants listed furnish new host records.

T.G.

## 364—Berliner und Münchener Tierärztliche Wochenschrift.

- a. JACOB, E., 1941.—“Das Kotfressen der Caniden als eine mögliche Ursache ihrer Trichinose.” Jahrg. 1941 (34), 411-412.

(364a) Jacob is at pains to prove that dogs and foxes quite commonly eat the fresh faeces of other animals, and suggests that this may lead to infection with *Trichinella*. He states that pigs will devour human faeces but has no evidence of their eating that of dogs or foxes.

A.E.F.

## 365—Biodynamica.

- \*a. LUYET, B. J. & HARTUNG, M. C., 1941.—“Survival of *Anguillula aceti* after solidification in liquid air.” 3, 353-362.
- \*b. LUYET, B. J. & HARTUNG, M. C., 1941.—“Death by devitrification in the nematode *Anguillula aceti*.” 3, 363-367.



(365a & b) Luyet & Hartung report that 80% of 230 vinegar eelworms survived solidification in liquid air, given rapid cooling, rapid rewarming to 30°C., and partial reduction of water by prior immersion in 30% ethylene glycol. Exposure to -43°C. for 30 minutes before rewarming did not prevent revival, but 1 minute at from -39°C. to -5°C. did, death being attributable to devitrification (crystallization from the amorphous state). [From Biol. Abstr., 16, Abstract Nos. 12965-6.] B.G.P.

### 366—Biological Bulletin.

- a. HSIAO, S. C. T., 1941.—“Melanosis in the common cod, *Gadus callarias* L., associated with trematode infection.” 80 (1), 37-44.
- b. HUNNINEN, A. V. & CABLE, R. M., 1941.—“Studies on the life history of *Anisoporus manteri* Hunninen and Cable, 1940 (Trematoda: Allocreadiidae).” 80 (3), 415-428.
- c. STUNKARD, H. W., 1941.—“Specificity of host-relations in the trematode genus *Zoogonus*.” 81 (2), 205-214.
- d. CABLE, R. M. & HUNNINEN, A. V., 1941.—“Studies on the life history of *Siphodera vinal-edwardsii*, a trematode parasite of the toadfish.” [Abstract of paper presented at the Marine Biological Laboratory, summer of 1941.] 81 (2), p. 279.
- e. STUNKARD, H. W. & WILLEY, C. H., 1941.—“Pathology and immunity to infection with heterophyid trematodes.” [Abstract of paper presented at the Marine Biological Laboratory, summer of 1941.] 81 (2), 279-280.

(366b) Hunninen & Cable give experimental proof of the life-cycle of *Anisoporus manteri* and consider its family relationships. The adults are found in 6 species of marine fish in North America and the cercariae occur in sporocysts in *Mitrella lunata*; the cercariae are of a modified cotylomicrocercous type, the cup-like tail being filled with gland cells which ensures a firm hold in the face of considerable currents. Metacercariae penetrate into the haemocoel of amphipods (*Carinogammarus mucronatus* and *Amphithoe longimana*). These metacercariae are progenetic and in the older ones their eggs are discharged into the cystic fluid. On being fed to fishes and excysting they were found to undergo little further development. The anus in this species does not open directly into the excretory bladder as it does in *Anisoporus* spp., but is a true uroproct—as described by Odhner for *Opecoeloides furcatum* (Bremser, in Rud. 1819) (corrected designation). Therefore, in an addendum, the authors' opinion is that the species described should be *Opecoeloides manteri* (Hunninen & Cable, 1940). This is distinguished from *O. furcatum* by having five instead of six sucker papillae—three anterior and two posterior. *Opecoeloides* and its allies are separated from Allocreadiidae, *sensu lato*, on the basis of the possession of a simple excretory pattern and cotylomicrocercous cercariae, and not on the criteria of confluent intestinal crura or the possession of an anus. This new grouping involves *Opecoelus*, *Opecoeloides*, *Coitocaecum*, etc., as well as *Allocreadium*, and therefore the family name should be Allocreadiidae *sensu stricto*, Opecoelidae falling as a synonym. The renaming and further separation of the remaining genera is not essayed. N.G.S.

(366c) Stunkard reviews the status of the European species *Zoogonus mirus* Looss from the Mediterranean and concludes that *Z. rubellus* (Olsson) from more northern seas is synonymous. The metacercariae are found in echinoids in the Mediterranean and he has found them in *Psammechinus miliaris* at Wimereux; these are conspecific with *Cercaria reticulata* found by him at Roscoff in *Nassa*. In spite of the heavy infection of echinoids at Wimereux, no cercariae were found in the large series of gastropods examined, and the search for adults in *Labrus* spp. was negative. The American form, *Z. lasius* (Leidy), is very similar but may prove to be distinct, as suggested by the cytological evidence; but though the cercaria (*C. lintoni*) occurs in *Nassa*, the metacercaria is only found naturally in *Nereis*, and the adults in eels. Although numerous nereids were examined at Wimereux none was infected, and attempts to induce the cercaria of the American form to encyst in echinoids were only partly successful. Parallels are drawn from other families of trematodes to show that there is a lack of specificity in the choice of intermediate hosts, and this is especially true of the second intermediate host. N.G.S.

(366d) Cable & Hunninen give a preliminary account of the life-history of *Siphodera vinal-edwardsii* (Linton), a trematode found in nearly every specimen of *Opsanus tau*. The pleurolophocercous cercariae are produced in simple elongated rediae, but they are unusual



in that the tail is inserted ventrally and coiled when at rest; the 14 penetration glands are in two groups instead of 4, and the flame cell pattern is simple. The cercariae encyst in the fins and muscles of various species of flounders, and feeding experiments indicate that the toadfish become infected by eating flounders harbouring these encysted metacercariae. N.G.S.

(366e) Stunkard & Willey have examined, over a period of years, the host-parasite relationships of heterophyid trematodes and their hosts. They find that gulls and dogs develop a strong resistance to infection if they survive an initial feeding of metacercariae. *Cryptocotyle lingua* begins to pass eggs within 5 days of invasion of dogs and can produce various inflammatory changes in the intestinal villi. Egg production reaches its maximum within about 4 weeks, after which it declines for 2 months and the infection seemed to have disappeared completely within 6 months. Dogs are then practically resistant to further infection. P.A.C.

367—Biologico. São Paulo.

- \*a. MELLO, M. J., 1941.—“Ancilostomose canina.” 7 (2), 33-37.

368—Bird-Banding.

- \*a. WORTH, C. B., 1941.—“Observations on intestinal worms in a young robin (*Turdus migratorius*) migratorius.” 12 (4), 175-176.

369—Boletín de la Academia Nacional de Medicina de Rio de Janeiro.

- \*a. MACIEL, H., 1941.—“Esquistosomose e cosmologia.” 113 (4), 93-102.

370—Boletín Clínico. Medellín.

- a. VILLEGAS, N., 1941.—“Caquexia acuosa ascaridiana.” 7 (9), 483-503.

371—Boletín del Hospital Oftalmológico de Ntra. Sra. de la Luz.

- \*a. TORRES ESTRADA, A., 1941.—“Posibilidad de observar con el oftalmoscopio las microfilarias del vitreo de los pacientes afectados de oncocercosis.” 1, 289-294.

372—Boletín del Instituto de Clínica Quirúrgica. Universidad de Buenos Aires.

- \*a. MOREL, C. J. L., 1941.—“Quistes hidatídicos del bazo.” 17 (143), 698-884.  
\*b. RIVAS, C. I. & GÖBICH, E., 1941.—“Equinococosis hidatídica del pulmón. El signo del doble arco, de Ivanissevich.” 17 (143), 1230-1237.

(372a) [See also below No. 538.]

(372b) [See also below No. 379a.]

373—Boletín del Instituto de Radiología y Centro de Estudio y Lucha Contra el Cáncer.

- \*a. CAPRIO, G., 1941.—“Un caso de quiste hidático de la mama; consideraciones sobre su diagnóstico.” No. 7, 59-60.

374—Boletín de Salud Pública. Montevideo.

- a. BERTON, S., 1941.—“El problema de la hidatidosis.” 2 (2), 57-59.

375—Boletín Sanitario de Guatemala.

- \*a. ROMEO DE LEÓN, J., 1941.—“Nuevo tipo de insectario para el cultivo de los simúlidos.” 12, 124-127.  
\*b. ROMEO DE LEÓN, J., 1941.—“La pulga humana (*Pulex irritans* L. 1758) como posible transmisor de la enfermedad de Robles.” 12, p. 128.

376—Boletín de la Sociedad de Obstetricia y Ginecología de Buenos Aires.

- \*a. CONTRERAS ORTIZ, N. & SALABER, J. A., 1941.—“Quiste hidático del hígado a evolución abdomino-pelviana.” 20, 389-395.  
\*b. BREA, C. A., 1941.—“Hidatidosis primitiva heterotópica de las serosas (Dévé).” 20, 675-678.

## 377—Boletín Técnico. Departamento Nacional de Agricultura. Costa Rica.

- a. CHAVARRÍA ALPÍZAR, C., 1941.—“Parásitos de los animales domésticos.” No. 39, 48 pp.

## 378—Boletines y Trabajos. Academia Argentina de Cirugía.

- \*a. CEBALLOS, A., 1941.—“Operación en un tiempo de los quistes hidáticos de pulmón libres de adherencias pleurales.” 25, 888-920.  
 \*b. MASCIOTTRA, R. L. & MASCIOTTRA, E., 1941.—“Sobre un pionesmoquiste hidatídico del hígado.” 25, 1057-1064.  
 \*c. CALCAGNO, B. N. & CASIRAGHI, J. C., 1941.—“Terapéutica biológica de la hidatidosis.” 25, 1162-1166.  
 \*d. ARCE, J. & BREA, M. M., 1941.—“Hidátido-pleura espontáneo.” 25, 1234-1241.  
 \*e. CALCAGNO, B. N. & MANFREDI, F. J., 1941.—“Terapéutica biológica de la hidatidosis. Equinocosis ósea, costo-vertebral.” 25, 1292-1296.

## 379—Boletines y Trabajos. Sociedad Argentina de Cirujanos.

- \*a. RIVAS, C. I. & GOBICH, E., 1941.—“Equinocosis hidatídica del pulmón; el signo del doble arco, de Ivanissevich.” 2, 591-599.  
 \*b. FERRACANI, R. S., 1941.—“Obstrucción intestinal por ovillo de *Taenia saginata*.” 2, 599-602.  
 \*c. LONGO, O. F., 1941.—“Quiste hidatídico de la glándula tiroides.” 2, 878-885.

(379a) [See also above No. 372b.]

## 380—Brasil-Medico.

- a. LIMA, A. O., 1941.—“Alergia em helmintologia. Sobre o valor dos testes cutaneos para o diagnostico das helmintiasis.” 55 (52), 845-848.

(380a) Lima reviews the recent literature on the antigenic reactions of helminths, including extraction of antigens and their diagnostic usefulness. In all three groups cutaneous tests seem to have a group reaction—e.g. the schistosomes or the filariae act as groups. In the same way some of the species of *Taenia* can give antigens suitable for the diagnosis of hydatid. P.A.C.

## 381—Bulletin de l'Académie des Sciences de l'URSS. Série Biologique.

- a. ARTEMOV, N. M. & LURE, R. N., 1941.—“Über den Gehalt von Acetylcholin und Cholinesterase in den Geweben der Bandwürmer.” 1941 (2), 278-282. [In Russian; German summary p. 282.]

## 382—Bulletin Eksperimentalnoi Biologii i Meditsini.

- \*a. MALEVICH, I. I., 1941.—[Resistance of rats and mice to repeated infections with *Trichinella* larvae.] 11 (3), 201-204. [In Russian.]

## 383—Bulletin et Mémoires de la Société Médicale des Hôpitaux de Paris.

- \*a. LAMY, M., 1941.—“Sur la recherche de divers parasites dans la moelle osseuse.” 56, 807-809.  
 \*b. SAINTON, P. ET AL., 1941.—“Pigmentation cutanée chez un hépatique; argyrose et kyste hydatique du foie calcifié.” 56, 840-847.

## 384—Bulletin of the Oklahoma Agricultural and Mechanical College.

- \*a. HUGHES, R. C., 1941.—“The *Taeniae* of yesterday.” 38 (16), 1-83.

## 385—Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord.

- a. SENEVET, G. & CHABELARD, R., 1941.—“De la fréquence relative des divers helminthes parasites de l'homme.” 32 (5/7), 164-169.

(385a) Senevet & Chabelard summarize the incidence of 26 species of human helminths, collating their data from published surveys of faeces examinations all over the world. The world distributions, based on over 2 million examinations, are also subdivided into north temperate, N. and S. subtropical, and intertropical zones. The limitations of faecal examinations entail



subnormal values for *Enterobius*, *Taenia*, and *Schistosoma haematobium*. The totals table shows the commonest helminths to be *Ascaris*, hookworms, *Trichuris*, *Enterobius*, *Taenia* spp., *Strongyloides*, in that order. In the N. temperate zone, however, *Trichuris* is the commonest. [It is odd to find only 14 cases of *Schistosoma japonicum* (misprinted as 6) in the whole world, as against 585 cases of *Opisthorchis*!] B.G.P.

### 386—Bulletin de la Société de Pathologie Exotique.

- \*a. PÉREZ ARA, A. & PÉREZ VIGUERAS, 1941.—“ Sur un nouveau nématode découvert dans la paupière de l'homme.” 34, 104-107.
- \*b. BRUMPT, E., 1941.—“ Présentation d'exemplaires de *Planorba glabratus* ayant leurs tentacules hypertrophiés par une infection expérimentale à *Schistosoma mansoni*.” 34, 111-115.
- \*c. ROUBAUD, E. & DESCHIENS, R., 1941.—“ Action des hyphomycètes prédateurs sur les larves de synthetocauls et de bunostomes.” 34, 127-130.

### 387—Canadian Journal of Comparative Medicine.

- a. PALLISTER, E. & PLUMMER, P. J. G., 1941.—“ Multicystic hydatid in the liver of a hog.” 5 (10), 291-292.

### 388—Canadian Public Health Journal.

- a. DEADMAN, W. J. & WILSON, D. C., 1941.—“ Report of outbreak of trichinosis.” 32 (10), 513-517.

(388a) Deadman & Wilson describe an outbreak of trichinosis in Hamilton, Ontario; 23 people were involved and all had eaten sausage obtained from the same butcher. Severe cases ran a high temperature for several days, had severe muscle pains and cramps. Nausea, puffy eyes and headaches were present in all. Larvae were found in the faeces of all of them and in the spinal fluid of one. The skin test gave a positive result. P.A.C.

### 389—Časopis Lékařů Českých.

- \*a. FINGERLAND, A. & MARŠÁLEK, J., 1941.—[Parasitic granuloma of the inguinal canal caused by *Oxyuris*.] 80, 532-536.

### 390—Chinese Medical Journal.

- a. CHIN, T. H., 1941.—“ *Trichoskrjabinia costata* from the pangolin, *Manis pentadactyla*.” 60 (1), 81-83.
- b. CHAO, L., 1941.—“ A survey of the parasites of dogs, cats and rats made at Chengtu, Szechwan, China.” 60 (3), 244-263.

(390a) Meyer's *Strongylus costatus* is assigned to *Trichoskrjabinia* and supplementary details of its morphology are added. R.T.L.

(390b) In this second part of his paper [for the first part, dealing with parasites of dogs, see Helm. Abs., Vol. X, No. 230a] Chao gives a list of all helminth species known to occur in cats and rats in China. From cats 12 trematodes, 9 cestodes and 12 nematodes are reported; from rats 7 trematodes, 5 cestodes, 13 nematodes and 1 acanthocephalan. Brief notes on each are given. R.T.L.

### 391—Chirurg.

- \*a. WENIG, K., 1941.—“ Über Wurmbefunde in der Appendix. Vergleichende Untersuchungen zum Einfluss der Kriegsernährung.” 13, 315-318.

### 392—Clinica Veterinaria.

- \*a. BOI, F., 1941.—“ Sulla terapia delle bronco-polmoniti verminose degli ovini.” 64, 45-50.

### 393—Colorado Farm Bulletin.

- a. HARSHFIELD, G. S. & WATSON, I., 1941.—“ Test of drenching feedlot lambs continued this year; last year's results described.” 3 (4), 10-12.

(393a) Harshfield & Watson divided 66 lambs into 3 equal groups as follows: (i) controls, (ii) given phenothiazine at  $\frac{1}{2}$  g. per lb., (iii) given a mixture of 1.5% CuSO<sub>4</sub> and 0.4% nicotine sulphate at 1 c.c. per lb. Both treated groups showed a reduction in the egg-count to about one third of the pre-treatment level. Worm counts from 4 lambs from each group showed a greater reduction with 'cunic' than with phenothiazine in the case of *Haemonchus*, *Ostertagia*, and *Cooperia*; neither drug reduced *Nematodirus*. Weight gains were similar in the treated groups but only the phenothiazine group showed an increased cash profit (14 cents per lamb) over the controls. B.G.P.

### 394—Comptes Rendus (Doklady) de l'Académie des Sciences de l'URSS.

- a. MALEVITSKAYA, M., 1941.—"Neue *Dactylogyrus*-arten (Trematoda) aus dem Dnjepr." 30 (3), 269–271.
- b. DUBININ, V. B., 1941.—"Neue Tatsachen über die Lokalisation der parasitären Würmer verschiedener Alters in dem Darmkanal der Vögel." 30 (4), 377–380.
- c. SKRYABIN, K. I., 1941.—"On the rearrangement of the taxonomy of nematodes of the Acuariidae and Ancyranthidae families." 30 (5), 470–473.
- d. POTECHKINA, V. A., 1941.—"Contribution to the biology of *Moniezia expansa* (Rudolphi, 1810); a tapeworm parasitic in sheep and goats." 30 (5), 474–476.
- e. PETROV, A. M., 1941.—"On the study of the life cycle of nematodes, representatives of the genus *Crenosoma* Molin, 1860." 30 (6), 574–575.
- f. BASHKIROVA, E. Y., 1941.—"Contribution to the study of the biology of the tapeworm *Anoplocephala perfoliata* (Goeze, 1782), parasitic in the horse." 30 (6), 576–578.
- g. MARKOV, G. S., 1941.—"Parasitic worms of birds of Bezymiannaya Bay (Novaya Zemlya)." 30 (6), 579–582.
- h. KOMAROVA, M. S., 1941.—"Investigation of the life cycle of *Bunodera luciopercae* Müll. (Trematodes, Digenea)." 31 (2), 184–185.
- i. ORLOV, I. V., 1941.—"Investigation of the cycle of development of the trematode *Stichorchis subtriquetrus* Rud., parasitic in beavers." 31 (6), 641–643.
- j. RIZHIKOV, K. M., 1941.—"Fresh water mollusc *Limnaea stagnalis* L. as reservoir host of the nematode *Syngamus trachea* Mont." 31 (8), 831–832.
- k. SKVORTSOV, A. A., SOKOLOVA, L. N. & TALIZIN, F. F., 1941.—"Diagnostication of cysticercosis in cattle by means of allergic reaction." 32 (7), 523–525.
- l. SKRYABIN, K. I., 1941.—"An analysis of phylogenetic evolution in Trematoda of the genus *Prosthogonimus* Lühe." 33 (7/8), 466–470.
- m. EVRANOVA, V. G., 1941.—"Response of the nervous apparatus of the sheep to *Trichocephalus* invasion." 33 (9), 502–503.

(394a) Malevitskaya describes 4 new species of *Dactylogyrus* found on fishes from the River Dnieper, namely, *D. bicornis* n. sp., *D. chondrostomi* n. sp., *D. ramulosus* n. sp. and *D. robustus* n. sp. A.E.F.

(394c) Skryabin has completely re-arranged the families Acuariidae and Ancyracanthidae of the Spirurata. Ancyracanthidae is suppressed, the subfamily Ancyracanthinae being placed in the Acuariidae. The new classification is given below. ACUARIIDAE: Acuariinae, containing *Acuaria*, *Cheilospirura*, *Dispharynx*, *Synlimantus*, *Chevreuxia*, *Rusguniella*, *Cosmocephalus*, *Antennocara*, *Syncuaria*, *Sexansocara*, *Pectinospirura*, *Aviculariella* and *Skryabinocerca*; Echinuriinae, containing *Echimuria*, *Seurattia*, *Skryabinoclava* and *Skryabinocara*; Streptocarinae n. subf., containing *Streptocara*; Ancyracanthinae, containing *Ancyracanthus*. SCHISTOROPHIDAE n. fam.: Schistorophinae, containing *Schistorophus*, *Sciadiocara* and *Ancyracanthopsis*; Serticepsinae n. subf., containing *Serticeps* and *Torquatella*; Viguierinae n. subf., containing *Viguiera*. HISTIOCEPHALIDAE n. fam.: Histiocephalinae n. subf., containing *Histiocephalus*; Parabronematinae n. subf., containing *Parabronema* and *Squamonema*; Stellocaronematinae n. subf., containing *Stellocaronema* and *Stellobronema*. A.E.F.

(394d) Potemkina collected about 3,000 oribatid mites from pasture not grazed by cattle during the summer and autumn of 1940. The mites were fed with eggs from mature segments of *Moniezia expansa*, and were observed to devour the eggs greedily. 1,000 of the mites were dissected at intervals and all stages of development up to the cysticercoid were found in *Galumnus obivus* and *Scheloribates laevigatus*. Both these species were also found to be effective intermediaries for *Moniezia benedeni* and *Thysaniezia ovilla*. A.E.F.



(394e) Petrov has proved experimentally that the following 6 molluscs can act as intermediaries for *Crenosoma vulpis*: *Succinia putris*, *Arion intermedius*, *Fruticicola fruticulum*, *Zonitoides nitida*, *Z. excavata* and *Agriolimax agrestis*. *Succinia putris*, *Agriolimax agrestis* and *Arion circumscriptus* were found to be intermediaries for *C. striatum*, a parasite of hedgehogs. It is likely that many other land molluscs act as intermediaries for *Crenosoma* spp. A.E.F.

(394f) [A fuller account of this work has been published [in Russian] in Vestn. Sel.-Khoz. Nauk. Vet., 1941, No. 2, 57-67. For abstract see below No. 518d.]

(394g) Markov has examined 111 birds, representing 6 species, for helminths. He records 4 species of trematodes, 13 of cestodes, 4 of nematodes and 2 of acanthocephalans. No new species are described, but a *Seurattia* sp., recovered from 3 species of birds, may prove to be new. A.E.F.

(394h) The complete life-cycle of *Bunodera luciopercae*, a parasite of perch, takes one year. The worms begin to produce eggs in spring. From April to June eggs are laid and the adults die; during the same period development in intermediaries [about which no information is given] takes place. Fish are found to be infected with immature forms during autumn and winter. A.E.F.

(394i) Orlov records that there was a heavy mortality, due to helminths, in beavers in the region of Voronezh in 1940. *Psilotrema* sp. is a new record for beavers. *Stichorchis subtriquetrus* (Paramphistomidae) was responsible for much of the loss. Orlov has worked out the life-cycle of this species and shows that *Planorbis vortex* can act as vector, as can *Limnaea ovata*. Occasionally *Bithynia tentaculata* and *Succinea putris* were found carrying rediae and cercariae. The miracidia contain rediae before hatching and there are no sporocysts. Cercariae are liberated 35 days after invasion of the mollusc. Encystment occurs after 18 hours. Under optimum conditions the larval development requires 10 to 12 weeks. P.A.C.

(394j) Rizhikov has completed experimentally the life-cycle of *Syngamus trachea* using *Limnaea stagnalis* as vector, obtaining finally heavy infestations in chickens. Most of the adults settled in the middle of the trachea, thus contrasting with the condition found when earthworms are used. He suggests that aquatic molluscs may spread infection to ducks and geese and even to crows and magpies, which are known to feed on such snails. P.A.C.

(394k) Skvortsov, Sokolova & Talizin attempted to diagnose cysticercosis in cattle by means of the cutaneous test, using an antigen extracted in saline from heads of hydatid. A total of 72 animals was used from two collective farms and 22.2% of the animals reacted positively. Only a single animal however was slaughtered, in which 7 *Cysticercus bovis* were found. The course of the reaction is described; peptonized saline was used as control. P.A.C.

(394l) As a highly developed genital system is an essential to an internal parasite, those with poorly developed organs can be judged as relatively primitive. The uterus too is useful in indicating the phylogenetic position of a species, being in the nature of a reservoir for eggs and therefore a criterion of the degree of fertility. On these grounds Skryabin considers that there are two main lines of development within the genus *Prosthogonimus*, with a number of subdivisions. *P. ovatus* seems to be a fairly stable species in which there are few possibilities for progress. *P. cuneatus* is a more labile species with great possibilities for further change and development. P.A.C.

(394m) Evranova has examined the histological changes in the peripheral nervous system of sheep infested with *Trichocephalus* spp. He describes some pathological changes which are too deep-seated to be reversed after removal of the helminths. He suggests that permanent damage may be done causing permanent disturbance of the motor nerves of the intestine. P.A.C.

### 395—Comptes Rendus des Séances de l'Académie des Sciences.

- a. DESCHIENS, R., 1941.—“Sur l'emploi des hyphomycètes prédateurs dans la prophylaxie des infestations à nématodes des végétaux.” 213 (3), 148-151.

(395a) Deschiens reports on the results of experiments designed to test the efficacy of certain nematode trapping fungi for the control of plant parasitic eelworms. He made use of

the hatched larvae of *Heterodera marioni* and found by introducing 1 cm. squares of a nutrient culture of the fungi into a watery suspension of 100 larvae that 90% of them were destroyed in 10 days by *Dactylella bembicodes* and in 15 to 20 days by *Arthrobotrys oligospora* and *Dactylella ellipsospora*. He next buried squares of a culture of *D. bembicodes* on pieces of bolting silk 5 cm. deep in soil richly infested with *H. marioni* larvae and found that after 15 days the mycelium which had developed was richly provided with trapping devices and 4 or 5 larvae per square centimetre of the silk had been captured. Finally he mixed finely chopped straw heavily seeded with spores of *D. bembicodes*, with soil containing larvae of *H. marioni* at the rate 100 g. of straw to 6 kg. of soil. After 15 days it was found that mycelia had developed from 1.5 to 2 cm. around each fragment of straw but not apparently elsewhere. He suggests that by this last means it might be possible to control the numbers of *H. marioni* larvae in soil as a prophylactic measure. T.G.

### 396—Comptes Rendus des Séances de la Société de Biologie.

- a. DESCHIENS, R. & NICOL, L., 1941.—“Recherche et dosage des anticorps dans l'ascaridiose par la méthode de la fixation du complément.” 135 (7/8), 516-520.
- \*b. GOTHIE, S., 1941.—“Contribution à l'étude du potentiel d'oxydo-réduction au cours de la fécondation chez *Ascaris megalocephala*.” 135, 643-664.
- \*c. ROUBAUD, E. & DESCHIENS, R., 1941.—“Essais relatifs à la prophylaxie de l'anguillulose du mouton par l'usage des hyphomycètes prédateurs du sol.” 135, 687-690.

(396a) Diagnosis of ascariasis in horses by means of the complement fixation test is somewhat erratic. The test usually gives a positive result when the infection is heavy, i.e. more than 100 worms, and the presence of worms in the liver and lungs affects the intensity of the reaction. Out of 26 horses known to be infected only 6 showed the infection by this test: of the 20 which gave a negative reaction 18 had only a small worm-burden but the other 2 carried between 40 and 50 worms. P.A.C.

(396c) Utilizing the nematode-destroying capabilities of certain fungi, Roubaud & Deschiens sowed the spores of *Arthrobotrys oligospora*, *Dactylella bembicodes* and *Dactylella ellipsospora* on the surface of one of two meadows; the other was used as control. They also distributed the eggs of *Strongyloides papillosus* and *Bunostomum* sp. on both meadows. Healthy sheep were next grazed on both meadows. In the control, without fungi, the sheep became parasitized with both nematodes whilst in the fungus-spored meadow they did not show an infection with *S. papillosus* at all, and an infection with *Bunostomum* sp. developed much later than in the other lot. The authors consider that the fungi grow on the faeces and the damp soil surface and destroy the larval stages of the parasites. [From an abstract in Zbl. Bakt., I. Abt. Ref., 141, 496-497.] T.G.

### 397—Current Science.

- a. MOORTHY, V. N., 1941.—“Note on the infection of copepod (*Diaptomus*) with larval trematode.” 10 (8), 368-370.
- b. SUBRAMANIAN, M. K., 1941.—“Sympathetic innervation of proglottides in *Avitellina lahorea* Woodland.” 10 (10), 441-443.
- c. BASIR, M. A., 1941.—“A new species of the nematode genus *Blattophila* Cobb, 1920 from a cockroach.” 10 (10), 443-445.

(397a) A larval trematode is described and illustrated from *Diaptomus* sp. in Bangalore, India. R.T.L.

(397b) The function of the main nerve cords in *Avitellina lahorea* is to co-ordinate the activities of the various proglottides. The various organs in a proglottid are mainly innervated by fibrils from the plexus and the ganglion cells which lie free in the medulla. R.T.L.

(397c) A second species of *Blattophila*, viz., *B. supellaima* n. sp., is described. This was obtained from *Supella supellectillum*. The male is unknown. R.T.L.

### 398—Deutsche Landwirtschaftliche Tierzucht.

- a. SCHMIDT, H. W., 1941.—“Ist gekochtes Fuchsfleisch trichinensicher?” 45 (11), p. 122.
- b. STEPPES, R.,—“Die Wurmsuche der Gänse.” 45 (25), 277-278.
- c. ZEEB, 1941.—“Der Kampf gegen Lungenwürmer bei Kälbern.” 45 (27), p. 302.



(398a) Schmidt rejects the use of fox meat as food since, through carelessness, the danger of transmitting trichinosis may arise. [From an abstract in Jber. Vet.-Med., 68, p. 524.]

B.G.P.

### 399—Deutsche Medizinische Wochenschrift.

- a. WIGAND, R., 1941.—“Klinisch-parasitologische Beobachtungen IV.” 67 (46), 1265–1267.

(399a) In order to determine whether subclinical trichinelliasis exists in Germany Wigand examined muscle preparations from 100 surgical patients at the Hildesheim hospital. All were negative for *Trichinella*. The second part of the paper is concerned with the classification of human helminthiasis. Wigand pleads for a system based on the mode of infection. His main divisions are: (i) infections caused by ingestion of ova, (ii) infections caused by ingestion of larvae, (iii) percutaneous infections, and (iv) infection route unknown.

A.E.F.

### 400—Deutsche Schlachthofzeitung.

- \*a. ALBIEN, 1941.—“Die Behandlung der Trichinose mit Fuadin.” 41, p. 163.  
 \*b. WOLLSCHLÄGER, P., 1941.—“Genügt die Untersuchung der Muskeln des Zwerchfellpfeilers allein für ein einwandfreies Ergebnis der Trichinenschau?” 41, 190–191.  
 \*c. ALBIEN, 1941.—“Über Trichinose.” 41, 305–306.

(400b) A pig was subjected to meat inspection by the usual methods and was passed as *Trichinella*-free. Later 28 preparations were made from the abdominal muscles and in each of these one specimen of *Trichinella* was found. [From an abstract in Jber. Vet.-Med., 69, p. 227.]

A.E.F.

### 401—Deutsche Tropenmedizinische Zeitschrift.

- a. RUTISHAUSER, A., 1941.—“Beitrag zur Operation der Skrotumelephantiasis. Erfahrungen aus dem Spital von Dr. Albert Schweitzer in Lambaréné, Gabon (Afrique Equatoriale Française).” 45 (14) 436–440.  
 b. ERHARDT, A., 1941.—“Chemotherapeutische Untersuchungen mit 430 KI, einem Spezifikum mit grossem therapeutischem Index, gegen die Ankylostomiasis, Trichuriasis, Ascaridose und Taeniose (Taenia- und Dipylidiuminfektion) der Katze.” 45 (15), 449–456.  
 c. SLIWENSKY, M., 1941.—“Drei Fälle von *Gongylonema pulchrum* bei Erwachsenen in Bulgarien.” 45 (23), 712–714.

(401c) *Gongylonema pulchrum*, which has been reported as an aberrant parasite of man in America, is now reported from 3 human patients in Northern Bulgaria where this parasite is common in domesticated animals.

R.T.L.

### 402—Deutsche Zeitschrift für Chirurgie.

- \*a. NANA, A. & ADAM, E., 1941.—“Klinisch-therapeutische Erfahrungen über die Echinokokkenkrankheit der Milz.” 254, 422–441.

### 403—Día Médico.

- \*a. LEONI IPARRAGUIRRE, C. A., 1941.—“Síndrome coledociano por quiste hidático.” 13, 941–945.  
 \*b. ANON, 1941.—“Resumen grafico de las helmintiasis humanas.” 13, 1158–1160.  
 \*c. GAMBIER, J. C., 1941.—“Coleperitoneo hidático.” 13, 1352–1354.

### 404—Extension Circular. University of Arizona, College of Agriculture.

- \*a. PISTOR, W. J. & ROWE, C. F., 1941.—“Prevention and control of poultry diseases and parasites.” No. 112, 2+33 pp.

### 405—Farmers' Bulletin. U.S. Department of Agriculture.

- a. BUNYEA, H. & WEHR, E. E., 1941.—“Diseases and parasites of poultry.” No. 1652, 82 pp. [Revision of No. 1337, 1931.]

### 406—Finska Läkaresällskapets Handlingar.

- \*a. BONSDORFF, B. VON, 1941.—“Experimental studies on the mechanism of development of pernicious anemia due to tapeworm infection.” Published in Nordisk Medicin, 12, 2877–2889.

## 407—Folha Medica.

- a. SOUZA LIMA, J. S., 1941.—“Alguns aspectos da esquistosomose em Minas.” 22 (5), 52-55.

## 408—Folletos de Divulgación Científica. Instituto de Biología. Chapultepec.

- a. CABALLERO y C., E., 1941.—“Resumen historico acerca de los estudios relativos a la onco-cerciasis en México.” No. 37, 11 pp.

## 409—Forschungsdienst.

- a. REINMUTH, E. & ENGELMANN, C., 1941.—“Versuche über die Kartoffelnematodenanfälligkeit verschiedener Tomatensorten.” 11 (3/4), 385-387.

(409a) The authors found that all of 13 varieties of tomato grown in soil infected with the potato root eelworm were attacked. In a three year trial “Golden Queen” showed on the average the smallest number of cysts. As the result of counts of cysts on the roots and in the soil after the plants had been grown, 8 varieties were classed as heavily, moderately or lightly attacked, but differences were found within the varieties and little hope is held out of breeding immune varieties.

M.T.F.

## 410—Gaceta Medica de Caracas.

- a. ORTIZ, A. A., 1941.—“Cuadros febriles bilharzianos.” 48 (8), 256-263; (9), 268-273.  
 b. PERDOMO HURTADO, B., 1941.—“Un caso de esplenomegalia insólita de origen bilharziano.” 48 (10), 286-287.  
 c. RAFAEL RÍSQUEZ, J. & VELEZ BOZA, F., 1941.—“Nota preliminar acerca de algunas reacciones alérgicas observadas en casos de bilharziosis mansoni.” 48 (10), 289-290.  
 d. RAFAEL RÍSQUEZ, J., 1941.—“Stiles y Rangel.” 48 (15/16), 323-325.

## 411—Gaceta Médica de México.

- \*a. ROBLES, C., 1941.—“Consideraciones respecto a la cisticercosis del cuarto ventrículo.” 71, 746-755.

## 412—Geneeskundig Tijdschrift voor Nederlandsch-Indië.

- a. BEUKEMA, W., 1941.—“Een infectie met *Hymenolepis nana*.” 81 (38), 2014-2020.  
 b. SPITZER, H., 1941.—“De mijnworm-bestrijding in Simpsonbaai (St. Maarten) Nederlandsch West-Indië.” 81 (42), 2255-2258.

(412a) Beukema describes a case of *Hymenolepis nana* infection in an Indo-Chinese and mentions that Oey Djoen Hoat has found it in two Dayaks on Long Iram. Treatment with semen cucurbitae (laboe merah) is effective and pleasant.

R.T.L.

(412b) The introduction of hookworm among the white fishermen of St. Marten, Netherlands West Indies, and its subsequent eradication by hygienic legislation and treatment are recorded.

R.T.L.

## 413—Guatemala Médica.

- \*a. AGUILAR, F. J., 1941.—“Parásitos que existen en Guatemala. La tenia equinococo en estado lavario infesta en considerable proporción al cerdo. Es muy probable que existan casos humanos.” 6 (11), 4-5.

## 414—Hospital. Rio de Janeiro.

- \*a. MEIRA, J. A. & ANTUNES, M. L., 1941.—“Sobre a reação de Henry na schistosomiase mansoni, com algumas considerações sobre o seu valor no diagnóstico diferencial com a malária.” 20 (5), 775-787.

## 415—Hospitalstidende.

- \*a. BORBERG, A., 1941.—[Significance of *Trichocephalus dispar* in eosinophilia and occult haemorrhage.] Published in Nordisk Medicin, 11, 2466-2469.



## 416—Igiene Moderna.

- \*a. BALICE, A., 1941.—“Sulla capacità delle larve di *Ankylostoma duodenale* di penetrare nella compagine delle verdure.” 34, 97-104.

(416a) Balice states that washing will not remove *Ancylostoma* eggs and larvae from vegetables, and that consequently when the latter are eaten raw there is a risk of infection. Experiments carried out to determine whether larvae can actively penetrate into vegetables proved negative. [From an abstract in Zbl. Bakt., I. Abt. Ref., 141, p. 134.] A.E.F.

## 417—Indian Journal of Medical Research.

- a. JOB, T. J., 1941.—“Food and feeding habits of the glassfishes (*Ambassis* Cuv. & Val.) and their bearing on the biological control of guinea-worm and malaria.” 29 (4), 851-862.

(417a) An examination of the gut contents of the glass fishes *Ambassis nama* and *A. ranga* has revealed that they have marked cyclopscidal feeding habits. As they feed at all depths and cyclops form a high percentage of their natural diet they should prove of value in the biological control of dracontiasis. R.T.L.

## 418—Indian Journal of Surgery.

- a. MOORTHY, V. N., 1941.—“Guinea-worm cyst—a case report.” 3 (4), [Reprint 3 pp.]  
b. MOORTHY, V. N., 1941.—“Life history of *Dracunculus medinensis*.” 3 (4), [Reprint 8 pp.]

(418b) Moorthy briefly outlines our knowledge of the life-history of the guinea-worm, including recent experimental work on dogs. The suggestion that aberrant migrations of the worm into the orbital cavity and the meninges in its earlier stages of growth in the definitive host are responsible for partial blindness, epilepsy and other obscure nervous disorders in endemic areas is based on his observations on experimental animals. R.T.L.

## 419—Instituto de Parasitología. Facultad de Agronomía y Veterinaria. Universidad de Buenos Aires.

- a. GELORMINI, N., 1941.—“El bromhidrato de arecolina como eliminador del *Echinococcus granulosus*.” 2 (1), 3-10.  
b. GELORMINI, N., 1941.—“Resistencia de los quistes hidatídicos extraídos del organismo animal.” 2 (2), 15-24.

(419a) Gelormini finds that arecolin hydrobromide is a useful anthelmintic against *T. echinococcus* in dogs. The dogs were kept on a fluid diet for 24 hours before treatment, then given the drug at the rate of 4 mg. per kg. body weight. Action usually occurred within half an hour. If it were much delayed the dose was repeated after an hour. It can be used periodically to prevent the building up of infection. P.A.C.

(419b) Hydatid parasites of sheep lungs die after burial for 9 days: of sheep liver, after 7 days. Left in the air *in situ* in the tissues they die after about a week. Fly larvae are of assistance in their destruction. The parasites can withstand a temperature of 4°C. for 80 days at least. P.A.C.

## 420—Journal of the American Medical Association.

- a. FAUST, E. C., 1941.—“The chemotherapy of intestinal parasites.” 117 (16), 1331-1335. [Discussion p. 1337.]

(420a) Faust recommends gentian violet for the treatment of oxyuriasis and strongyloidiasis in man. Hexylresorcinol is preferred in dealing with ascariasis, tetrachlorethylene for hookworm or whipworm, and oleoresin of aspidium or carbon tetrachloride for tapeworms. Details of the various drug preparations, dosages and the treatment of patients before and after medication are given. W.P.R.

## 421—Journal of the Ceylon Branch of the British Medical Association.

- a. DE SARAM, G. S. W. & GUNWARDENE, S. R., 1941.—“An analysis of forty-two cases of death following anthelmintic treatment.” 38 (3), 255-294.

(421a) De Saram & Gunewardene, after reviewing 42 cases of death following anthelmintic treatment, make recommendations that care should be taken to prevent the drug entering the respiratory passages during administration, that individuals with gastro-enteritis should be strengthened before treatment, and that early symptoms of distress occasioned by the anthelmintic should receive immediate attention. The use of magnesium sulphate as a purgative is discussed and its administration as an isotonic solution recommended. W.P.R.

**422—Journal of the Council for Scientific and Industrial Research. Australia.**

- a. KAUZAL, G. P., 1941.—“The efficiency of phenothiazine against *Nematodirus* spp. in sheep.” 14 (4), 301–303.
- b. KAUZAL, G. P. & GORDON, H. McL., 1941.—“A useful mixing apparatus for the preparation of suspensions of faeces for helminthological examinations.” 14 (4), 304–305.
- c. WHITLOCK, H. V., 1941.—“A new apparatus for counting small numbers of nematode eggs in faeces.” 14 (4), 306–307.

(422a) Kauzal reports good effects against *Nematodirus* from dosing 3 ewes with 0.6 g. phenothiazine per kg., and 3 more with a further 1.2 g. per kg. 11 days later. Unfortunately the egg counts (made with a new flotation device) of the 6 control ewes also dropped considerably. B.G.P.

(422b) Kauzal & Gordon have modified the Gordon and Whitlock technique by using an electric drill fitted with blades for making a faecal suspension in 5 to 8 seconds. It is also used, in making cultures, for mixing the sample with dried sterile faeces. B.G.P.

(422c) Whitlock describes a counting cell for use when eggs are scanty in faeces. A suspension of 3 g. faeces in 30 ml. water + 30 ml. brine is sampled by pouring 3.5 ml. into the rectangular cell made of celluloid strips with a glass lid. After 30 to 60 minutes flotation the lid is gently slid off the cell (opaque with faeces) on to an adjoining transparent platform, and the eggs lying under 4 sq. cm. are counted. The factor 5.7 gives eggs per gram. B.G.P.

**423—Journal of the Department of Agriculture. Victoria.**

- a. ANON, 1941.—“Phenothiazine treatment against worms. Valuable new drug.” 39 (8), 366–368.

**424—Journal of the Department of Agriculture. Western Australia.**

- a. TOOP, C. R., 1941.—“Worms in sheep.” 18 (4), 252–267.

**425—Journal of Infectious Diseases.**

- a. OLIVER-GONZÁLEZ, J., 1941.—“The dual antibody basis of acquired immunity in trichinosis.” 69 (3), 254–270.

(425a) Oliver-González shows that at least two antibodies develop in connection with trichinosis and suggests that even these may be composite substances. One antibody acts specifically on the adult and the other on the larva. The anti-adult antibody is the active factor in the passage of passive transfer. They differ also in their reaction to precipitation and absorption and by changes in titre throughout initial infection and superinfection. Immature larvae are attacked by anti-adult antibodies. P.A.C.

**426—Journal of the Jamaica Agricultural Society.**

- a. LOCKETT, S., 1941.—“Fluke disease of cattle and sheep. (Distomatosis or fascioliasis).” 45 (11), 410–418.

**427—Journal of the Malaya Branch of the British Medical Association.**

- a. MAH, K. L., 1941.—“Ainhum and filariasis. Clinical reports from Kelantan.” 4 (4), 445–447.

**428—Journal of Mammalogy.**

- a. GOBLE, F. C. & COOK, A. H., 1941.—“Some lungworm records from foxes in New York.” 22 (4), p. 456.



(428a) The authors record the finding of *Eucoleus aerophilus* in red foxes and *Crenosoma vulpis* in both red and grey foxes which had been trapped in the Helderberg Plateau region, New York State.

D.O.M.

#### 429—Journal de Médecine de Lyon.

- \*a. GARIN, C. & ROMAN, E., 1941.—“Sur le parasitisme intestinal des noirs de l'Afrique occidentale.” 22, 411-416.

#### 430—Journal of the Philippine Pharmaceutical Association.

- \*a. ACENA, S. P., 1941.—“Fish parasites and human disease.” 32, 235-239.

#### 431—Journal of the Royal Egyptian Medical Association.

- a. KHALIL, M., 1941.—“The anti-bare-foot campaign in combating [sic] ancylostomiasis in Egypt.” 24 (4), 143-150.
- b. NAGATY, H. F., 1941.—“Trematodes of fishes from the Red Sea. The genus *Hamacreadium* Linton, 1910 (fam. Allocreadiidae). With a description of two new species.” 24 (7), 300-310.
- c. GHAREEB, A. A., 1941.—“Cancer of the body and tail of the pancreas with bilharziasis.” 24 (7), 311-320.
- d. NASR, M., 1941.—“On the surroundings of *H. heterophyes* cysts in the fish.” 24 (7), 321-323.
- e. HALAWANI, A., 1941.—“On fantorin in the treatment of schistosomiasis.” 24 (7), 342-347.
- f. KHALIL, M., 1941.—“The study of the main health problems of Egypt by the Ministry of Public Health. VIII. Summary of the program of the combat of bilharziasis in Egypt.” 24 (9/11), 439-440.

(431b) Nagaty records the following 3 species of *Hamacreadium* from Red Sea fishes: *H. mutabile* Linton, *H. mehsena* n. sp. from *Lethrinus mehsena*, and *H. interruptus* n. sp. from *L. mehsenoides*. All the species are described and figured. Nagaty considers *H. epinepheli* Yamaguti to be a synonym of *H. mutabile*.

A.E.F.

(431e) Halawani reports on the treatment of a series of cases of schistosomiasis with Fantorin (a trivalent organic antimony compound, similar in composition to Fouadin). Treatment was given to 60 patients, but for a variety of reasons only 39 completed the course. Fantorin was successful in all 39 cases, and there were no secondary symptoms.

A.E.F.

#### 432—Journal of the Royal Society of Western Australia.

- a. GOSS, O. M., 1941.—“Platyhelminth and acanthocephalan parasites of local shags.” 26 (for 1939-1940), 1-14.

(432a) Goss records the following new species from shags in Western Australia: *Paryphostomum phalacrocoracis* n. sp. (Echinostomidae) from *Phalacrocorax ater* and *Microcarbo melanoleucus*; *Diplostomum granulosum* n. sp. (Strigeidae) from *Phalacrocorax ater*; *Dilepis maxima* n. sp. (Dilepididae) from *M. melanoleucus*; *D. minima* n. sp. from *Phalacrocorax* spp. and *M. melanoleucus*; and *Corynosoma clavatus* n. sp. (Polymorphidae) from *Phalacrocorax* spp. and *M. melanoleucus*.

A.E.F.

#### 433—Journal of the Shanghai Science Institute.

- \*a. KOMIYA, Y. & TAJIMI, T., 1941.—“Metacercariae from Chinese *Pseudorasbora parva* Temminck and Schlegel with special reference to their excretory system. I. (Metacercariae from Chinese fresh waters No. 1).” New Series, 1 (1), 69-106.
- b. KOMIYA, Y., 1941.—“*Cercaria shanghaiensis* n. sp., and its life cycle, with special reference to its excretory system. (Cercariae from Chinese fresh waters No. 1).” New Series, 1 (2), 109-120.
- c. KOMIYA, Y., 1941.—“A new cystophorous cercaria, *Cercaria yokotei* and its excretory system. (Cercariae from Chinese fresh waters No. 2).” New Series, 1 (2), 121-127.

(433b) Komiya describes *Cercaria shanghaiensis* n. sp. from *Viviparus quadratus*. When fed to 2 fishes, *Fluta alba* and *Mastacemберus acreatus*, young worms which may be a species of *Azigia* were recovered 7 days later. The excretory system of the cercaria is described in detail.

A.E.F.

## 434—Journal of the South African Veterinary Medical Association.

- a. MÖNNIG, H. O., 1941.—“Measles in cattle and pigs: ways of infection.” 12 (2), 59–61.

(434a) Cattle probably do not become infected with measles of *T. saginata* under precisely the same conditions as do pigs with *T. solium*. The eggs of *T. solium* are unlikely to become widely disseminated owing to the fragile nature of the segment and because of their quiescent habit. Pigs, being scavengers, will therefore pick up eggs in bulk in the faeces where they have been deposited. Cattle on the other hand are not scavengers and do not crop grass closely so that widely disseminated eggs would be missed by them. Therefore it is of advantage to the parasite to produce a segment which is firm in structure and of an active crawling nature. Furthermore *T. saginata* segments tend to pass out of the bowel actively and be scattered more widely. As a result of these habits it is not difficult to understand why pigs are usually heavily infected and cattle only lightly so. There is some evidence that cattle measles have a comparatively short life span and that the host produces active immune bodies. P.A.C.

## 435—Journal of the South Carolina Medical Association.

- \*a. BRABHAM, J. C., 1941.—“Study of hookworm in South Carolina.” 37, 267–268.  
 \*b. DAVISON, H. M., THOROUGHMAN, J. C. & PESCHAU, J. B., 1941.—“Intestinal infestations.” 37, 294–297.

## 436—Journal of the Tennessee Academy of Science.

- a. VENARD, C. E., 1941.—“Studies on parasites of Reelfoot Lake fish. II. Parasites of the warmouth bass, *Chaenobryttus gulosus* (Cuvier and Valenciennes).” 16 (1), 14–16.  
 b. PARKER, M. V., 1941.—“The trematode parasites from a collection of amphibians and reptiles.” 16 (1), 27–45.  
 c. GOODNIGHT, C. S., 1941.—“A new technique for the study of gordiaceans.” 16 (1), p. 91.  
 d. REIBER, R. J., 1941.—“Nematodes of Amphibia and Reptilia. I. Reelfoot Lake, Tennessee.” 16 (1), 92–99.  
 e. BYRD, E. E., REIBER, R. J. & PARKER, M. V., 1941.—“The opossum, *Didelphis virginiana* Kerr, a new host for *Paragonimus westermani* in the United States.” [Abstract.] 16 (4), 356–357.  
 f. BYRD, E. E. & REIBER, R. J., 1941.—“Studies on the strigeid trematodes of the alligator, *Alligator mississippiensis* (Daudin).” [Abstract.] 16 (4), p. 357.  
 g. PORTER, D. A., 1941.—“Experimental infections of cattle with the lungworm *Dictyocaulus viviparus*.” [Abstract.] 16 (4), p. 357.  
 h. VENARD, C. E., 1941.—“Studies on parasites of Reelfoot Lake fish. III. A new genus and new species of trematode (Plagiorchioidea; Macroderoididae) from *Lepisosteus platostomus*.” 16 (4), 379–383.

(436a) Venard gives an annotated list of 8 trematodes, 3 cestodes, 3 nematodes and 2 Acanthocephala, found in *Chaenobryttus gulosus* from Reelfoot Lake. R.T.L.

(436b) Of 36 trematode species found in Amphibia and Reptilia of Tennessee, Georgia and Florida 6 are new to science, viz., *Neorenifer elaphis* n. sp. from *Elaphe obsoleta obsoleta*; *Paralechriorchis syntomenteroides* n. sp., *Ophioxenos singularis* n. sp., and *Lechriorchis insignis* n. sp., all from *Thamnophis sirtalis sirtalis*; *Cercorchis reelfooti* n. sp. from *Amphiuma means tridactylum*; and *Stomatrema faranciae* n. sp. from *Farancia abacura reinwardtii*. Twelve species are recorded for the second time only and approximately 24 new host records are also made. The genus *Stomatrema* is provisionally placed in the Haplometridae on account of the character of its excretory bladder. R.T.L.

(436c) Even large gordiaceans can be cleared to show the internal organs by dehydrating in various grades of alcohol for about 15 minutes each and clearing in xylol. R.T.L.

(436d) Fourteen nematodes from 8 species of Reptilia and 7 species of Amphibia from Reelfoot Lake are listed with brief remarks on each. R.T.L.

(436f) Byrd & Reiber record the following strigeids from *Alligator mississippiensis*: *Pseudoneodiplostomum acetabulata* n. sp., *Polycotyle ornata*, *Crocodilicola pseudostoma*, *Pseudocrocodilicola americanense* n. sp. and *P. georgiana* n. sp. A.E.F.

(436g) Porter fed infective larvae of *Dictyocaulus viviparus* to Jersey calves. Zinc sulphate, using Stoll's technique, was employed to detect larvae of the next generation in the



faeces. Larvae appeared in the faeces 21 to 30 days after infection. In one previously infected calf the prepatent period was 41 days. The interval which elapsed before larvae disappeared from the faeces varied between one and four months. In two cases re-infection was successful.

A.E.F.

(436h) *Paramacroderoides echinus* n. g., n. sp., which is described and illustrated, is differentiated from *Macroderoides* by the presence of spines on the oral sucker, which is much larger than the acetabulum. The oesophagus is shorter and there is a seminal vesicle. It is also differentiated from *Alloglossidium*.

R.T.L.

#### 437—Journal of the University of Bombay. Section A.

- a. TRIVEDI, J. J. & NARGUND, K. S., 1941.—“Synthetical anthelmintics. Part II.  $\gamma$ -substituted butyrolactones.” New Series, 10 (3), 99–101.
- b. TRIVEDI, J. J. & NARGUND, K. S., 1941.—“Synthetical anthelmintics. Part III.  $\gamma$ - $\gamma$ -disubstituted butyrolactones.” New Series, 10 (3), 102–105.

#### 438—Journal of the University of Bombay. Section B.

- a. KARVE, J. N., 1941.—“Some parasitic nematodes of fishes. I.” New Series, 10 (3), 9–42.

(438a) Karve records 11 species of nematodes, mainly in freshwater fishes from Poona, 7 of which are new, 2 already described and 2 undetermined. The new species are: *Spironoura khadrai* n. sp. from *Barbus dobsoni*, *Gendria brevispiculum* n. sp. from *Macrones* sp., *Paraquimperia anguillae* n. sp. from *Anguilla bengalensis*, *Metaquimperia callichroi* n. g., n. sp. from *Callichrous bimaculatus*, *M. bagarii* n. sp. from *Bagarius yarrelli*, *Heliconema ahiri* n. sp. from *Anguilla bengalensis*, and *Paracamallanus ophiocephali* n. sp. from *Ophicephalus gachua*. Figures and detailed technical descriptions of the worms are given.

A.E.F.

#### 439—Kentucky Medical Journal.

- \*a. WINTER, J. E., 1941.—“Trichinosis with case report.” 39, 391–393.

#### 440—Klinicheskaya Meditsina.

- a. DEINEKA, I. Y., 1941.—[Suppuration of hydatid cysts of the lungs.] 19 (3), 91–95. [In Russian.]
- b. GUSEINZADE, A. A., 1941.—[Blood changes in ankylostomiasis.] 19 (4), 89–92. [In Russian.]

#### 441—Közlemények az Összehasonlító Élet-és Körtan Köréből.

- \*a. EBER, G., 1941.—[Researches on *Strongyloides papillosus*.] 29, p. 457.
- \*b. LEOPOLD, E., 1941.—[The behaviour of *Haemonchus contortus* in the stomach of dead animals.] 30, p. 56.

(441b) Leopold states that, while *Haemonchus* adults and eggs can be found in the abomasum of animals immediately after death, there may be few or no worms or eggs if the post-mortem is postponed for 24 hours. An experiment, involving counting the worms immediately after death, sewing them up in the abomasum again, and keeping some worms *in vitro* as controls, proved that both worms and eggs in the stomach were destroyed by digestion after 30 to 40 hours, though stomach-worm eggs might still be numerous in the intestinal contents. [From an abstract in Dtsch. tierärztl. Wschr., 50, p. 292.]

B.G.P.

#### 442—Laboratory and Medical Progress.

- a. NASR, M., 1941.—“The occurrence of *Prohemistomum vivax* (Sonsino, 1892) Azim, 1933. Infection in man, with a redescription of the parasite.” 2 (2), 135–149.

(442a) Nasr reports a light infection of *Prohemistomum vivax* in a cadaver from Cairo, and mentions a more recent finding by Azim of a very heavy and fatal infection in a man in Cairo. A survey is urged as it is thought that this common parasite of dogs and cats in Egypt (though normally developing in kites) may have hitherto been overlooked in man. A redescription is given of the adult and the literature reviewed. The cercaria is distinguished from that of *Szidatia joyeuxi* which occurs in Tunis [see also above No. 352a].

N.G.S.

## 443—Lancet.

- a. DAVIS, E. & ALLOTT, E. N., 1941.—“Trichiniasis in South-East London.” Year 1941, 2 (6162), 396-397.
- b. HOUSTON, J. C. & ROSS, L., 1941.—“Trichiniasis with cerebral symptoms. Report on two cases.” Year 1941, 2 (6162), 397-398.
- c. EARLE, K. V., 1941.—“Further experiences with sulphapyridine in filariasis.” Year 1941, 2 (6170), 667-668.

(443a) An outbreak of trichinosis in members of a fire station and a group of neighbours in south-east London is detailed. 26 out of 42 persons developed the disease but only 13 showed characteristic symptoms. There was one death. All the cases arose from a single supply of sausage. R.T.L.

(443c) Sulphapyridine acts rapidly on associated secondary infections but is inert against the filaria worms. R.T.L.

## 444—Laval Médical.

- \*a. MARCOUX, H., 1941.—“Utilité de l'examen coprologique dans le dépistage des parasitoses intestinales.” 6, 374-378.

## 445—Maanedsskrift for Dyrlæger.

- \*a. SKOVBJERG, E., 1941.—“Iagttagelser over Løbestrongylose og andre Sygdomme hos Faar.” 52, p. 573.
- \*b. HANSEN & MADSEN, 1941.—“Om Forekomsten af Trikiner hos Sølvraeve og Rotter.” 53 (5), p. 136.

(445a) Skovbjerg describes the course of an outbreak of parasitic gastritis in a flock of sheep, complicated by “swayback” (which yielded well to copper therapy). Soya fodder appeared to lead to toxic symptoms and had to be discontinued. Various anthelmintics were rejected as toxic or ineffective, but good results were obtained from intra-ruminal injection of 10 c.c. trichlorethylene repeated after a fortnight. [From an abstract in Skand. Vet. Tidsskr., 31, 163-164.] B.G.P.

(445b) Hansen & Madsen report that 197 silver foxes, 2 red foxes, and 281 rats examined in Denmark were all negative for *Trichinella*. [From an abstract in Berl. u. Münch. tierärztl. Wschr., 1942, p. 301.] A.E.F.

## 446—Medical Parasitology and Parasitic Diseases.

- a. SHIKHOBALOVA, N. P., 1941.—[Immunity in helminthic diseases. II. The influence of the intensity of infestation on the development of *Trichocephalus* in albino mice.] 10 (3/4), 340-349.
- b. SHIKHOBALOVA, N. P., 1941.—[Immunity in helminthic diseases. III. The influence of the intensity of the primary infestation on the degree of resistance of albino mice to *Trichocephalus muris*.] 10 (3/4), 349-352.
- c. KHARCHENKO, V. I., 1941.—[The efficacy of Osarsol in the treatment of trichuriasis.] 10 (3/4), 458-459.
- d. KHARCHENKO, V. I., 1941.—[Incidence of helminths in man in Sevastopol.] 10 (3/4), 459-460.
- e. KOLESNIKOV, N. M. & TUAIEV, S. M., 1941.—[The effect of carbon tetrachloride on animals.] 10 (5/6), 584-585.
- f. KAMALOV, N. G., GORDADZE, G. N. & TSUTSUNAVA, T. N., 1941.—[Strongyloidiasis in man in Georgia.] 10 (5/6), 586-589.

(446c) Kharchenko compares two methods for administering Osarsol [a Russian arsenic preparation resembling Stovarsol] in human trichuriasis. Both methods were from 35% to 40% successful, judged by absence of eggs from the faeces after treatment. A.E.F.

(446d) Of 3,811 persons examined for helminths in Sevastopol, 27.0% were positive. *Trichuris trichiura* (19.0%), *Hymenolepis nana* (5.6%), and *Ascaris* (3.0%), were the most frequently recorded species. A.E.F.

## 447—Medical Press and Circular.

- a. CAWSTON, F. G., 1941.—“The present stage of the bilharzia problem.” 206 (27), 490-491.



## 448—Medicina. Madrid.

- \*a. ARRANZ CASTELL, F. & GONZÁLEZ HERVA, A., 1941.—“Un caso de perforación diafragmática por quiste hidatídico suprahepático.” 9, 253-255.

## 449—Medicina Española.

- \*a. FERRÁNDIZ-SENANTE, V., 1941.—“Equinococosis primitiva heterotópica del peritoneo (con una observación clínica).” 6, 225-235.

## 450—Medizinische Klinik.

- \*a. HOLLER, G. & SCHMID, P., 1941.—“Über Trichinose. I. Ein kasuistischer Beitrag zur Klinik und Therapie der Trichinose.” 37 (39), 984-988; (40), 1012-1015.  
 b. SCHMIDT, H. W., 1941.—“Die Abriegelung der Trichinoseinfektion nach neuen Gesichtspunkten.” 37 (47), 1180-1181.

(450b) Schmidt's paper is in substance the same as that published by him in Tierärztl. Rdsch., 1941, 47, 311-314. For abstract see Helm. Abs., Vol. X, No. 96f. A.E.F.

## 451—Memorias do Instituto Oswaldo Cruz.

- \*a. TRAVASSOS, L. & FREITAS, J. F. TEIXEIRA DE, 1941.—“Relatório da terceira excursão a zona da Estrada de Ferro Noroeste do Brasil realizada em Fevereiro e Março de 1940. II. Pesquisas helmintológicas.” Ano 1940, 35 (3), 610-634.  
 \*b. RIBEIRO, D. J., 1941.—“Pesquisas helmintológicas realizadas no Estado do Pará. VIII. *Camallanus amazonicus* n. sp. parasito de *Podocnemis expansa* (Schw.).” Ano 1940, 35 (4), 723-727.  
 \*c. ALVES DE ALMEIDA CARDOSO, R., 1941.—“Diagnóstico histológico da cisticercose cerebral.” 36, 33-36.  
 \*d. PEREIRA, C. & ALMEIDA, W. F. DE, 1941.—“Observações sobre parasitologia humana e veterinária em Mato Grosso.” 36, 301-309.

## 452—Memorias de la Sociedad Cubana de Historia Natural “Felipe Poey”.

- \*a. PÉREZ VIGUERAS, I., 1941.—“Nota sobre varios vermes encontrados en el ‘flamenco’ (*Phoenicopterus ruber*).” 15 (2), 327-336.

(452a) Pérez Viguera has found 4 tapeworms, one fluke and one nematode in the proventricula and the intestine of *Phoenicopterus ruber*, viz., *Leptotaenia ischnorhyncha*, *Hymenolepis caroli*, *H. cirrostylifera* n. sp. and *H. megalorchis*; *Parorchis acanthus*; *Tetrameres cubana* n. sp. [From Biol. Abstr., 16, Abstract No. 13664.] R.T.L.

## 453—Michigan Public Health.

- \*a. ANON, 1941.—“Swimmers' itch as a problem of northern resort lakes being met by new program of chemical treatment.” 29, 153-155.

(453a) A mixture of 2 parts of copper sulphate and one part of copper carbonate spread on the beach bottom by means of a power-driven pump and hose-distributing equipment mounted on a boat has been used successfully in controlling swimmers' itch in the bathing beaches of Michigan lake resorts. 3lb. of the mixture only is required for 1,000 square feet and the dilution, while killing the snails, does not harm the fish. [From an abstract in Publ. Hlth Engng Abstr., 21, p. 54.] R.T.L.

## 454—Mitteilungen aus der Biologischen Reichsanstalt für Land- und Forstwirtschaft.

- a. GOFFART, H., 1941.—“Ein neues Mittel zur Bekämpfung von Nematoden.” 64, 62-67.

(454a) Goffart reports that, in field trials, applications of 100 to 500 g. of a proprietary preparation called “Cystogon” to each square metre of infected soil brought about a very marked reduction in the cyst content and an increase in the yield of the succeeding potato crop. There is evidence of the substance having an effect in the year subsequent to application. Beneficial results have followed the application of 2 g. of the substance to the site of each plant. [From an abstract in Zbl. Bakt., Abt. II, 105, p. 205.] T.G.

## 455—Münchener Medizinische Wochenschrift.

- \*a. BORMANN, F. v., 1941.—"Ueber einige in den Ländern des Mittelmeerbeckens heimische Krankheiten." 88 (30), 825-828.
- \*b. DÖRLE, M., 1941.—"Darmparasiten und Vitamin C-Mangel." 88, 981-982.
- \*c. GAASE, A., 1941.—"Ergänzende Mitteilungen zur serologischen Diagnose der Trichinose." 88, p. 1183.

(455b) There are substances in faeces containing helminth eggs which have the faculty of destroying vitamin C. Dörle suggests that avitaminosis-C in worm-infested animals may be due partly to destruction by resorption and oxidation by the digestion of the worms. [From an abstract in Zbl. Bakt., I Abt. Ref., 141, p. 488.] P.A.C.

## 456—Nachrichtenblatt für den Deutschen Pflanzenschutzdienst.

- \*a. GOFFART, H., 1941.—"Die laboratoriumsmässige Auswertung von Nematode-Freilandversuchen." 21, 79-80.

(456a) Goffart describes a simple technique for the evaluation of the numbers of cysts of *Heterodera schachtii* from soil. 75 g. of soil are shaken up with water and the floating debris therefrom is collected on a sieve of bolting silk of  $0.33 \times 0.33$  mm. mesh on which the cysts are retained. By inverting the sieve the cysts are then collected into a glass dish and are counted. White and yellow cysts show up well against a dark background. [From an abstract in Zbl. Bakt., Abt. II, 105, p. 201.] T.G.

## 457—National Medical Journal of China and the Tsinan Medical Review.

- a. KOO, S. Y., 1941.—"Trichinosis among hogs and rats in Fukien." 27, 349-350.
- b. WU, K. & HSU, H. P. H., 1941.—"Schistosomiasis in China. I. Introduction." 27, p. 480.
- c. CHEN, K. C., 1941.—"Paragonimiasis in Fukien." 27, 550-552.
- d. HSU, H. P. H. & WU, K., 1941.—"Schistosomiasis in China. II. Distribution." 27, p. 561.
- e. WU, K. & HSU, H. P. H., 1941.—"Schistosomiasis in China. III. Morphology and life history." 27, 612-613.

(457a) In the Chinese province of Fukien, *Trichinella spiralis* occurred in the diaphragms of 5 out of 320 hogs (1.56%), and 4 out of 36 *Mus rattus* (11%). The infections of the pigs were light, those of the rats were heavy. R.T.L.

(457b, d, e) From questionnaires sent to hospitals, schistosomiasis is apparently endemic in the following nine Chinese provinces, viz., Kiangsu, Chekiang, Kiangsi, Anhwei, Hunan, Hupeh, Szechuen, Kwangtung and in Fukien all along or south of the river Yangtze. Knowledge of the distribution of the molluscan intermediary is very inadequate. It is apparently absent in North China. A map illustrates the paper. A chart and some photographs with some general information on schistosomiasis is provided for the medical public in China. R.T.L.

(457c) A survey for paragonimiasis in the Fukien Province showed that cats were naturally infected at Foochow and Futsing. Two leopards from Foochow and Putien had mature worms in the lungs. The molluscan intermediaries *Melania toucheana* and *Katayama tangi* occurred in 13 centres, but snails infected with the redia and cercaria were found only in Foochow and Dionghloh. The second intermediaries *Potamon denticulatus* and *Parathelphusa sinensis* occurred in 9 centres, and encysted cercariae were obtained from the crabs in Foochow, Futsing, Dionghloh, Nanping and Kutien. R.T.L.

## 458—New Jersey State Potato Association. Hints to Potato Growers.

- \*a. ANON, 1941.—"Potato nematode disease." 22 (4), 3-4.

(458a) *Heterodera schachtii* is reported on potatoes on farms in the vicinity of Hicksville, Long Island. [From an abstract in Exp. Sta. Rec., 86, p. 207.] R.T.L.

## 459—New Zealand Medical Journal.

- a. BARNETT, L., 1941.—"The incidence of hydatid disease in New Zealand." 40 (219), 273-278.



(459a) The statistics of the public hospitals of New Zealand show that during the year 1940 there were admitted for hydatid 128 patients of whom 11 died in hospital. The proportion of hydatid patients to the total number of patients in all these public hospitals was 1 in 947. The human mortality rate for hydatid was approximately 14%. As the average percentage of livers of animals slaughtered at the main abattoirs condemned for hydatid was 44%, and the export of clean livers brought in a revenue of £400,000, it is evident that hydatid is costing New Zealand from 2 to 3 hundred thousand pounds per annum. R.T.L.

#### 460—North Carolina Medical Journal.

- a. THOMAS, W. C. & MOREHEAD, R. P., 1941.—“Pinworm and appendix.” 2 (7), 349–350.

(460a) Of 1,000 appendices examined in the surgical pathology laboratory of North Carolina, 52 contained *Oxyuris vermicularis* ranging in number from 1 to 25. 35 of the patients had complained of abdominal pain, nausea and acute vomiting; in 7 cases there was only chronic abdominal discomfort. R.T.L.

#### 461—Ohio Journal of Science.

- a. BANGHAM, R. V., 1941.—“Parasites from fish of Buckeye Lake, Ohio.” 41 (6), 441–448.

(461a) Of 504 fish, belonging to 38 species, from Buckeye Lake, Ohio, 334 (i.e. 66.2%) were found to be parasitized. Cestodes (particularly Caryophyllaeidae) and acanthocephalans were common, whilst trematodes and nematodes were present in smaller numbers. There were no new species. A.E.F.

#### 462—Ohio State Medical Journal.

- a. WISELEY, F. M. & TREECE, I. E., 1941.—“Trichinosis treated with sulfapyridine.” 37 (10), p. 952.

#### 463—Orvosi Hetilap.

- \*a. MÉSZÁROS, A., 1941.—[A case of cerebral cysticerciasis.] 85, 281–284.

#### 464—Philippine Journal of Animal Industry.

- a. BOLONG, D. S., 1941.—“Some observations on the curing of measles pork.” 8 (4), 355–369.

(464a) Bolong has determined the effect on *Cysticercus cellulosae*, *in situ*, of high and low temperatures, dry curing and pickling with and without smoking, and various methods of cooking, using as criteria of viability resistance to staining with methyl green, general morphological appearance, and self-administration of cysts in gelatine capsules. The gist of his numerous results is that most curing and cooking processes are lethal, but that chilling is not. An interesting anomaly is that, while chemical analysis showed infected meat to have less protein than uninfected, rats and mice made more weight on a diet of the former. [In the author's conclusion: for “Dogs did not become hosts of *Cysticercus cellulosae*”, read: *Taenia solium*.] B.G.P.

#### 465—Proceedings of the American Society for Horticultural Science.

- a. BURK, E. F. & TENNYSON, G., 1941.—“Hot water treatment for control of nematodes in sweet potato seed roots.” 39, 299–302.

(465a) Burk & Tennyson found that infestations of *Heterodera marioni* in sweet potatoes occur in the outer quarter to half inch of the tissues and that eggs and larvae can be successfully eliminated by hot-water treatment when infected roots  $1\frac{1}{4}$  to  $1\frac{1}{2}$  inches in diameter are given a water bath at 116 F. for 65 minutes. A temperature of 122°F. or higher is injurious to root tissues. T.G.

#### 466—Proceedings of the Iowa Academy of Science.

- a. SULKIN, N. M., 1941.—“A preliminary report on the use of parasitic nematodes of the earthworm for class study and cytological research.” [Abstract.] 47 (for 1940), p. 415.

## 467—Proceedings of the Lenin Academy of Agricultural Sciences of U.S.S.R.

- a. MASYUKOV, A. V., 1941.—[The aetiology of parafilaria in cattle.] 6 (6), 30-31. [In Russian.]

(467a) In 1940 Masyukov found *Parafilaria bovicola* Tubangui, 1934, in cattle on a collective farm in the Tuapse district (Caucasus). He gives a table comparing the measurements of his own specimens with those given by Tubangui. A.E.F.

## 468—Proceedings of the Ohio State Veterinary Medical Association.

- a. BOLEY, L. E., LEVINE, N. D., WRIGHT, W. L. & GRAHAM, R., 1941.—“Phenothiazine in the treatment of gastro-intestinal parasites of animals.” Year 1941, pp. 63-87.

(468a) Boley & co-workers found that the results of treating with phenothiazine 17 sheep, 14 goats, 75 horses and foals, and 26 pigs were largely similar to those found by others. The drug was effective against stomach worms and nodular worms in sheep; it is probable that goats require a relatively higher dose than sheep; in horses the drug was effective against strongyles but not against ascarids unless mixed with carbon disulphide, and usually red-cell counts and haemoglobin were temporarily reduced; in pigs the drug was effective against ascaris and *Oesophagostomum*, but less so in heavy infestations. Results are summarized in 11 tables. B.G.P.

## 469—Proceedings of the Society for Experimental Biology and Medicine.

- a. WELT, L. G., 1941.—“Urinary excretion of trichina antigen in experimental trichinosis.” 48 (3), 587-589.  
b. EVANS, T. C., LEVIN, A. J. & SULKIN, N. M., 1941.—“Inhibition of embryo formation in certain nematodes by roentgen radiation.” 48 (3), 624-628.

(469a) Welt has demonstrated the presence of “Trichina antigen” in the serum and urine of *Trichinella spiralis* infected monkeys. The antigen was found for several weeks after infection. “Trichina antibody” was also present in the serum during this period. The infected monkeys developed oedema, fever and eosinophilia. W.P.R.

## 470—Proceedings of the Utah Academy of Sciences, Arts and Letters.

- a. MERRILL, H. W., 1941.—“A further study of the incidence of trichinosis in northern Utah as indicated by the intradermal skin test and post-mortem examination of diaphragms.” [Abstract.] 18, p. 17.  
b. MERRILL, H. W., 1941.—“A survey of the incidence of trichinosis in northern Utah as indicated by the intradermal skin tests and post-mortem examination of diaphragms.” 18, 59-63.  
c. HAMMOND, D. M. & HAMILTON, G. A., 1941.—“The incidence of *Coccidia* and intestinal nematodes in sheep at the Utah State Agricultural College and vicinity of Logan.” 18, 69-71.

(470a) Merrill found 21 out of 216 persons, given the intradermal test, to be infected with *Trichinella*. This gives an infection rate of 9.7%. No larvae were found in 47 diaphragms examined in the compressorium and by artificial digestion. This paper continues the work reported on in the following abstract. A.E.F.

(470b) Of 111 persons examined for *Trichinella* by the intradermal test, 12 (i.e. 10.8%) were positive. Merrill further examined 18 diaphragms in the compressorium and by artificial digestion: all were negative by the former method, but by the latter he found two probable positives. [For a later report on this work see preceding abstract.] A.E.F.

## 471—Progressive Fish-Culturist. U.S. Bureau of Fisheries.

- \*a. FERGUSON, M. S. & HAYFORD, R. A., 1941.—“The life history and control of an eye fluke.” No. 54, 1-13.

(471a) The life-cycle of the metacercaria of a strigeid worm (*Diplostomum*) which caused a serious loss of several species of fish, particularly rainbow trout, at the State Fish Hatchery, Hackettstown, N.J. in 1938, has been demonstrated experimentally, but its identity has not



been fully determined. In hatcheries chlorine gas, Ca hypochlorite, and CuSO<sub>4</sub> have been found most effective in the control of the molluscan intermediary. [From Biol. Abs., 16, Abstract No. 3208.]

R.T.L.

#### 472—Public Health. London.

- a. HOWELL, N. G., 1941.—“Trichiniasis in Wales.” 55 (1), 5–9.

(472a) Since 1922, when the first cases of trichinosis occurred in Wales, 7 outbreaks have been brought under the notice of the Welsh Board of Health, but hitherto no accounts of these outbreaks have been published. The 1922 outbreak occurred at Milford Haven and there were 13 cases. Four more cases occurred in Milford Haven in 1925 and two in 1939. Two cases were reported from Dale in 1925; 5 from Bishopston, near Swansea, in 1930; 15 from Haverfordwest in 1939; and a single case near Fishguard in 1940. In March to April 1940 three cases, and in November 1940 four cases, were detected in Cardiff. Over 400 pigs slaughtered at the Central Abattoir in Haverfordwest in 1939 proved negative, and after the 1940 outbreak in Cardiff all pigs from Pembrokeshire slaughtered in Cardiff have been examined without result. In 5 out of 7 of the Welsh outbreaks the origin of the infected material was a limited area in Pembrokeshire. Every outbreak occurred at times at which the killing of old sows is usual. It is suggested that the disease was introduced from Germany during the last war when boats with pigs aboard were brought in as war prizes.

R.T.L.

#### 473—Publicações Médicas. São Paulo.

- \*a. LEMOS TORRES, U. & TUFFY HARON, 1941.—“Infestação múltipla por *Taenia* (*T. solium*.” 13, 3–10.

#### 474—Puerto Rico Journal of Public Health and Tropical Medicine.

- a. OLIVER GONZÁLEZ, J., 1941.—“The effect on virulence of *Trichinella spiralis* from passage through rabbits, guinea pigs and rats.” [Abstract.] 17 (1), 61–63.

(474a) Oliver González found that the occurrence of *Trichinella spiralis* decreased after the second passage through guineapigs or the fourth passage through rabbits. The loss in virulence was evidenced by a decrease in the ratio of larvae in the muscles to the number fed and by the lack of symptoms when large infective doses were fed to rats. After a single passage through rats virulence was regained.

W.P.R.

#### 475—Queensland Agricultural Journal.

- a. SLOAN, W. J. S., 1941.—“The control of tomato pests.” 56 (4), 277–294.

#### 476—Records of the Indian Museum.

- a. BHALERAO, G. D. & GIDEON, P. W., 1941.—“On the occurrence of *Prosthogonimus putschkowskii* Skrabin, 1913, in India.” 43 (4), 411–413.  
b. BHALERAO, G. D., 1941.—“On the occurrence of the bat fluke, *Prosthodendrium ovimagnosum* (Bhalerao, 1926) in a dog.” 43 (4), 415–416.

(476a) To the three earlier records of *Prosthogonimus* in India Bhalerao & Gideon add a fourth, namely, *P. putschkowskii* from *Ardeola grayi*. The genus *Prosthogonimus* is discussed in the light of a recent paper by Witenberg & Eckman [see Helm. Abs., Vol. VIII, No. 2552] and it is concluded that *P. indicus* Srivastava, 1938, is a synonym of *P. putschkowskii*. A.E.F.

(476b) Bhalerao reports the finding of *Prosthodendrium ovimagnosum*, normally a parasite of bats, in the intestine of a dog in Calcutta. It is suggested that the dog became infected by feeding on a parasitized bat, and that the infection was therefore accidental. A short description of the worm recovered from the dog is given.

A.E.F.

#### 477—Records of the South Australian Museum.

- a. JOHNSTON, T. H. & MAWSON, P. M., 1941.—“Nematodes from Australian marine mammals.” 6 (4), 429–434.

- b. JOHNSTON, T. H. & MAWSON, P. M., 1941.—“Some nematodes from Kangaroo Island, South Australia.” 7 (1), 145-148.

(477a) Johnston & Mawson record 11 species of nematodes from Australian marine mammals, including the following new species: *Crassicauda grampicola* n. sp. from *Grampidelphis exilis*; *Contracaecum gypsophocae* n. sp. from *Gypsophoca tasmanica*; and *C. ogmorhini* n. sp. and *Phocascaris hydrurgae* n. sp., both from *Hydrurga leptonyx*. A.E.F.

(477b) Johnston & Mawson record *Hedruris hylae* n. sp., *Aplectana flindersi* n. sp. and *Raillietnema kartanum* n. sp., all from *Hyla jervisiensis*; *Thelandros kartana* n. sp. from *Hemiergis peroni*; and *Pharyngodon kartana* n. sp. from *Gymnodactylus milii*. Known species are recorded from *Varanus goldi* and *Thylogale eugenii*. A.E.F.

#### 478—Reichsgesundheitsblatt.

- \*a. ANON, 1941.—“Deutsches Reich. Runderlass des Reichsministers des Innern, betr. Bekämpfung der Trichinose.” 16, p. 671.

(478a) As recent work in Germany has shown that foxes and badgers are the chief source of trichinosis, existing legislation is extended to control the disposal of the flesh of these animals by incineration, burial or cooking. [From an abstract in Vet. Bull., Weybridge, 12, 499-500.] R.T.L.

#### 479—Report of the Alabama Agricultural Experiment Station.

- a. CHRISTENSON, R. O., 1941.—“Studies on the occurrence, epidemiology and inter-host relationships of nematode parasites of the chicken (*Gallus gallus*) in Alabama.” 51st (1940), p. 43.

(479a) In some miscellaneous observations on fowl parasites, Christenson notes that eggs of *Capillaria columbae* and of *Cheilospirura hamulosa* can remain viable for 6 months, eggs of *Ascaridia galli* and *Heterakis gallinae* for 12 months. Eggs of the two latter species can tolerate immersion in strong nicotine compounds for a short time and will embryonate, but nicotine alkaloids retard development. Such alkaloids cause adult *Ascaridia* to become quiescent, a characteristic which may account for the efficiency of nicotine anthelmintics. P.A.C.

#### 480—Report of the Chief of the Bureau of Animal Industry. United States Department of Agriculture.

- a. UNITED STATES. BUREAU OF ANIMAL INDUSTRY, 1941.—[Report of the Zoological Division.] Year 1940-1941, pp. 75-92.

(480a) The Zoological Division of the Bureau of Animal Industry briefly reports on (*inter alia*) the following helminthological subjects: phenothiazine against horse strongyles; bio-nomics of *Fasciola hepatica* in the Gulf coast region; nodular oesophagostomes and *Haemonchus* in sheep and cattle; *Trichinella* in grain- and garbage-fed pigs; *Acanthocephala* and *Strongyloides* in pigs; effects of fowl tapeworm in relation to diet; phenothiazine in toxic doses for horses, and in effective doses for cattle and sheep; pelletierine hydrochloride mixed with tin salts against fowl tapeworms. B.G.P.

#### 481—Report. Texas Agricultural Experiment Station.

- a. WOODHOUSE, C. A., REID, J. J. & SCHMIDT, H., 1941.—“Investigation of gastrointestinal parasites in cattle.” 53rd (1940), pp. 159-160.  
b. BOUGHTON, I. B. & HARDY, W. T., 1941.—“Stomach worms (*Haemonchus contortus*) in sheep and goats.” 53rd (1940), pp. 234-236.

(481a) In a preliminary survey of cattle parasites in the Gulf Coast area of Texas, Woodhouse et al. record 15 species including *Gongylonema* and *Cotylophoron*. Six-figure total counts were estimated in two cows dying of parasitic gastro-enteritis. B.G.P.

(481b) Boughton & Hardy found that 3 lambs, kept indoors during the first year, picked up very few *Haemonchus* when grazed on infested pasture. Phenothiazine kept in suspension with 5% bentonite was 100% effective against *Haemonchus* in doses of 0.3 g. per lb., and in



suspension with 1% CuSO<sub>4</sub> was very effective at 0.1 g. per lb. Comparable success followed the administration to 159 goats of one part phenothiazine in 3 parts cottonseed meal. Weaned lambs on infested pasture showed little or no infestation as a result of having access to a lick of 1 to 3 phenothiazine and salt, but the fleeces were stained red with thionol. When phenothiazine is given to ewes in milk, thionol is excreted in the urine of the nursing lambs. B.G.P.

482—Research Bulletin. Puerto Rico Agricultural Experiment Station.

- a. ANDREWS, J. S. & MALDONADO, J. F., 1941.—“The life history of *Oesophagostomum radiatum*, the common nodular worm of cattle.” No. 2, 14 pp.

(482a) The free-living phase of the life-cycle of *Oesophagostomum radiatum* of cattle was found to be similar to that of *Cooperia curticei*, *Trichostrongylus* spp. and of other oesophagostomes. The ensheathed infective larvae began to migrate from the charcoal-faeces cultures at room temperature (25 to 30 C.) on about the 6th day. In calves the larvae complete the 2nd ecdysis and penetrate the ileum, caecum or colon in 24 to 48 hours after infection. They remain within the gut about 10 days, growing to 2 mm. in length. During this period the cervical glands undergo considerable development and the provisional buccal capsule of the 4th stage larvae develops. During this stage the genital primordium in the female moves posteriorly. On about the 8th or 9th day the larvae undergo the 3rd ecdysis and return to the lumen of the intestine on about the 10th day. They continue their development in the caecum and colon without again entering the mucosa. On the 19th day after infection these 4th stage larvae are approximately 4.5 mm. The reproductive systems of both sexes now grow rapidly and the adult buccal capsule forms. The males and females then grow to about 13.6 and 17.1 mm. respectively. Eggs are found in the faeces of the host 37 to 41 days after infection. R.T.L.

483—Revista Argentina de Dermatosisifilología.

- a. SCOLARI, P. G. & OCAÑA, T., 1941.—“Distomatosis cutanea.” 25 (3), 369–376.

(483a) Scolari & Ocaña describe the removal of a fluke 7 mm. long from a subcutaneous nodule the size of a pigeon's egg situated in the right lumbo-gluteal region of a girl of 10. The nodule had the histological appearance of a necrosing pyogenic granuloma with a marked local eosinophilia. The fluke, which had a ventral sucker at one third of its length from the anterior end and at the edges of which dark ramifying vessels were seen, is assumed to be *Fasciola hepatica*. A similar nodule had first appeared in the abdominal wall, and repeatedly disappeared and reappeared some distance away, suggesting that the fluke was actively migrating. B.G.P.

484—Revista Argentina de Urología.

- \*a. REBAUDI, L., 1941.—“Consideraciones sobre un caso de quiste hidático renal.” 10, 450–452.

485—Revista de Biología e Higiene.

- a. AMARAL, A. D. F. DO & LEAL, R. A., 1941.—“Sobre o encontro de ovos viáveis de *Ascaris lumbricoides* e de *Trichuris trichiura* em adubo constituído de resíduos de esgoto.” 11 (1), 35–39.

486—Revista Brasileira de Biologia.

- a. LENT, H. & FREITAS, J. F. TEIXEIRA DE, 1941.—“Sobre os filarídeos parasitos de lacertídeos neotrópicos.” 1 (4), 383–386.

(486a) Lent & Freitas describe and figure *Pirotuba digiticauda* n. g., n. sp., a new filariid from an unidentified lizard. Owing to the confusion which exists at present in the Filariidae they are unable to assign their new species to a subfamily. Previous records of filariids in lizards are briefly mentioned. A.E.F.

487—Revista de Cirugía de Buenos Aires.

- \*a. GUTIERREZ, A. & GARRE, E. S., 1941.—“A proposito de quiste hidatídico del rinon; cirugía conservadora.” 20, p. 318.

## 488—Revista Clínica Española.

- \*a. ALMORZA, J. & PÉREZ GENER, E., 1941.—“Quiste hidatídico del bazo.” 3, 50–52.

## 489—Revista de la Facultad de Medicina. Bogotá.

- a. SALGAR, A. A., 1941.—“El primer caso de quiste hidático en Colombia.” 10 (4), 325–338.

## 490—Revista de Ginecología e d'Obstetricia.

- \*a. WERNECK, J. E. F. & JUNQUEIRA, M. A., 1941.—“Carcinoma do ovario e esquistosomose.” 2, 94–102.

## 491—Revista Ibérica de Parasitología.

- a. LÓPEZ-NEYRA, C. R., 1941.—“Sobre dos *Lyperosomum* nuevos para la fauna helmintológica ibérica.” 1 (1), 35–43.  
 b. HERNÁNDEZ LÓPEZ, E., 1941.—“Un caso de perforación intestinal por un *Ascaris*.” 1 (2), 129–131.  
 c. LÓPEZ-NEYRA, C. R., 1941.—“Especies nuevas o insuficientemente conocidas correspondientes al género *Hymenolepis* Weinland (s. l).” 1 (2), 133–170.

(491a) López-Neyra considers the case of *Lyperosomum transversogenitalis*, a trematode showing great variation and describes a new subspecies *hispanicum* from *Caprimulgus ruficollis* in Spain. It is broad with a large ventral sucker. The genitalia are large and the yolk follicles very numerous. *Lyperosomum clathratum* from *Cypselus apus* near Granada is a new geographical record. The Spanish material is distinguished by a relatively large egg. P.A.C.

(491c) López-Neyra considers the structure and general relationships of some species of *Hymenolepis* and describes *H. pipistrelli* n. sp. from *Pipistrellus pipistrellus* near Granada. It has a small scolex bearing from 22 to 24 hooks about 22 $\mu$  long. The cirrus sac reaches nearly to the longitudinal excretory vessels. The uterus is a lobulated sac. A series of tables compare and contrast groups of species, arranged according to their hosts. P.A.C.

## 492—Revista del Instituto Bacteriológico “Dr. Carlos G. Malbran”.

- a. PIROSKY, I., PIROSKY, R. DE & FRANCESCHI, C., 1941.—“Polisacárido aislado de quiste hidático.” 10 (2), 230–232.

## 493—Revista del Instituto de Salubridad y Enfermedades Tropicales. Mexico.

- a. MAZZOTTI, L. & OSORIO, M. T., 1941.—“Sobre la presencia de huevecillos de *Fasciola hepatica* en los extractos biliares medicinales. Su significación en el diagnóstico coprológico.” 2 (3/4), 355–361. [English summary pp. 360–361.]  
 b. MAZZOTTI, L. & OSORIO, M. T., 1941.—“Presencia de microfilarias sanguíneas en perros de la ciudad de México.” 2 (3/4), 363–364. [English summary p. 364.]  
 c. VARGAS, L., 1941.—“Nota sobre el papel de algunos artrópodos en la transmisión de *Onchocerca volvulus*.” 2 (3/4), 365–373. [English summary p. 372.]

(493a) In 1934 Bacigalupo had drawn attention to the danger of false diagnoses of human fascioliasis due to *Fasciola hepatica* eggs in medicinal biliary extracts. Mazzotti & Osorio have found such eggs in 10 out of 30 samples of extracts on sale at chemists' shops, but only after an over-dose of extract from heavily parasitized cattle was it possible to detect eggs in the patient's faeces. False diagnoses are therefore likely to be rare. B.G.P.

(493b) Mazzotti & Osorio record microfilariae, probably *Mf. immitis*, in 53 of 206 stray dogs in Mexico City: adults could not be found. It is unusual to find this parasite at an altitude as high as that of Mexico City (2,260 metres). B.G.P.

(493c) As a result of feeding a number of arthropods on patients infested with *Onchocerca*, Vargas was able to detect few or no microfilariae in the Malpighian tubes, mid- or hind-gut of *Cimex lectularius*, *Triatoma picturata*, *Pediculus humanus corporis* and *capitis*, *Aedes aegypti*, and *Anopheles pseudopunctipennis*. On the other hand, 12 out of 27 *Ornithodoros turicata* were positive. Probably the latter, along with *Simulium* and *Culicoides*, alone have mouth parts adapted to removing microfilariae from the skin. The tick can probably be excluded as an effective vector, but *Culicoides* demands further investigation. B.G.P.



## 494—Revista Médica Brasileira.

- \*a. VILLELA-PEDRAS, J., 1941.—“Processo racional de tratamento da teníase ; via transduodenal x via oral.” 11, 466-474.

## 495—Revista Médica Latino-Americana.

- a. CHIFFLET, A., 1941.—“Alergia tisural y quiste hidático.” 27 (313), 55-65. [French summary pp. 64-65.]

## 496—Revista de Medicina Tropical y Parasitología, Bacteriología, Clínica y Laboratorio.

- a. SOTOLONGO, F. & GOLDBERGER, J., 1941.—“Endoscopic examinations in cases of parasitism and tropical diseases.” 7 (6), 110-119.

(496a) Sotolongo & Goldberger examined 108 persons in Havana for parasites. There were 19 cases of *Enterobius vermicularis*, 14 of *Trichuris trichiura*, 6 of taeniasis, 4 of *Ascaris* and 3 of *Hymenolepis nana*, as well as protozoa and various non-parasitic diseases. They describe any pathological changes that might have been associated with the presence of the parasites.

P.A.C.

## 497—Revista Médico-Quirúrgica de Patología Femenina.

- \*a. FERRACANI, R. S., 1941.—“Obstrucción intestinal por ovillo de *Taenia saginata*.” 18, 317-319.

## 498—Revista de la Policlínica Caracas.

- \*a. JAFFÉ, R., 1941.—“Sobre el diagnóstico anatómico de la bilharziosis con comunicación de algunos casos raros (oclusión intestinal y bilharziosis de la trompa).” 10, 185-191.  
 b. JAFFÉ, R., 1941.—“La cirrosis hepática en sus diferentes formas. (En especial la cirrosis hepática bilharziana).” 10 (60), 285-298.  
 c. ESPÍN, J., 1941.—“Hallazgo de corpusculos semejantes a los de negri, en un caso de mielitis bilharziana.” 10 (60), 327-336. [English & French summaries p. 335.]  
 d. POTENZA, L., 1941.—“Estudio comparativo de los pigmentos bilharziano y malárico.” 10 (61), 363-373.

(498d) Potenza finds it difficult to distinguish malarial from bilharzial pigment. Both occur in reticulo-endothelial cells and have the same histological appearance and histo-chemical reactions: both are birefringent to polarized light. If anything, bilharzial pigment is more circumscribed, malaria more diffused.

B.G.P.

## 499—Revista Sanitaria. Caracas.

- \*a. SCOTT, J. A., 1941.—“Horizontes helmintologicos.” 6, 509-522.  
 \*b. BRICENÓ ROSSI, A. L., 1941.—“La frecuencia de la helmintiasis y protozoosis en Caracas como resultado del estudio de 21,746 muestras fecales.” 6, 523-533.

## 500—Revista de la Sanidad Militar. Buenos Aires.

- \*a. MAINOLI, M. R., 1941.—“Quiste hidático de órbita ; autóctono de la provincia de Salta.” 40, 32-37.

## 501—Revista de la Sanidad Militar. Habana.

- \*a. MERLO GONZÁLEZ, J. A., 1941.—“Triquinosis.” 5, 52-56.

## 502—Revista de Tuberculosis del Uruguay.

- \*a. GREZZI, S., 1941.—“Quistes hidáticos y tomografía.” 10, 206-209.

## 503—Rivista di Parassitologia.

- \*a. GRAMICCIA, G., 1941.—“Sulla nomenclatura di due specie di tenie dei polli e considerazioni sul genere *Raillietina* Fuhrmann 1920.” 5, 67-71.  
 \*b. PALOMBI, A., 1941.—“*Cercaria dentali* Pelseneer, forma larvale di *Ptychogenimus megastoma* (Rud.). Nota previa.” 5, 127-128.

(503a) The correct names of *Raillietina tetragona* and *Hymenolepis carioca* are *R. bothrioplites* and *H. tetragona* respectively. [From an abstract in Zbl. Bakt., 1 Abt. Ref., 141, p. 128.] P.A.C.

#### 504—Röntgenpraxis.

- \*a. SCHOLTZ, A., 1941.—“Über das Röntgenbild des alveolären Leberechinokokkus.” 13, 134–137.

#### 505—Rundschau auf dem Gebiet der Gesamten Fleischbeschau.

- \*a. KOLBE, F., 1941.—“Neueres über die Rinderfinne.” 42, 115–116.

#### 506—Schweizerische Medizinische Wochenschrift.

- \*a. WEBER, R., 1941.—“Zur Verwurmung der Schweiz.” 71, 1053–1054.

#### 507—Schweizerische Zeitschrift für Pathologie und Bakteriologie.

- \*a. KOHLSCHÜTTER, E. & KOPPISCH, E., 1941.—[On the mode of extrusion of schistosome ova from blood vessels into tissues.] 4, 357–369.

#### 508—Science.

- a. BYRD, E. E., 1941.—“The opossum, *Didelphis virginiana* Kerr, a new host for *Paragonimus* in Tennessee.” 93 (2423), p. 542.

#### 509—Semana Médica.

- a. RODRÍGUEZ VILLEGAS, R. & SCHENA, A. T., 1941.—“Micosis pulmonar en una cavidad residual hidatídica.” Año 48, 2 (28), 93–96.  
 \*b. BACIGALUPO, J., POU, M. C., CALZADA, S. V. & BERNINZONI, J., 1941.—“La *Limnaea viatrix* d'Orbigny huésped intermediario de la *Fasciola hepática* en el Uruguay.” Año 48, 2 (48), 1282–1283.  
 \*c. ROSASCO, O. E., 1941.—“Quiste hidatídico primitivo multilocular del vasto externo.” Año 48, 2 (50), 1428–1433.

#### 510—Southern Florist and Nurseryman.

- \*a. BRISON, F. R., 1941.—“Propagation problems—research for nematode-resistant peach: experience with Shalil variety.” 52 (8), p. 9.

(510a) The Shalil peach is claimed to be resistant to root-knot due to *Heterodera marioni*, though some workers have reported it to be susceptible. Brison suggests that this may be due to seedling variability. He further recommends the propagation of proved resistant stocks by vegetative means, either by grafting a long scion on to a nurse root or by budding on to seedling stock and then, after a year, planting so that 8 to 10 inches of the budded top is below ground; it will then develop its own roots. [From an abstract in Exp. Sta. Rec., 87, 240–241.] T.G.

#### 511—Sovetskaya Meditsina.

- a. FRANK, S. I., 1941.—[Oil of chenopodium in the treatment of ascariasis.] 5 (9), p. 31. [In Russian.]  
 b. VILSKER, L. M., 1941.—[Comparative evaluation of certain methods of therapy of tapeworm infestation with male fern preparations.] 5 (10), 32–33. [In Russian.]

(511a) Commenting on a recent paper by Gershtein on the treatment of ascariasis with chenopodium oil [see Helm. Abs., Vol. IX, No. 536g], Frank emphasizes the importance of accurate dosage in view of the high toxicity of the drug. A.E.F.

#### 512—Suomen Eläinlääkärilehti. (Finsk Veterinärtidskrift.)

- \*a. TARNAALA, K., 1941.—[The incidence and control of *Cysticercus bovis* in Finland.] 47, 299–320. [In Finnish: German summary p. 320.]



(512a) Tarnaala reports that 0.4% to 0.5% of cattle inspected in Finland during 1923 to 1936 were infected with *Cysticercus bovis*. The principal causes of infection are primitive hygienic conditions and the manuring of pastures with human faeces. Stricter meat inspection and improved rural hygiene are suggested as control measures. [From an abstract in Z. Fleisch- u. Milchhyg., 51, p. 287.]  
A.E.F.

### 513—Taiwan Igakkai Zassi.

- a. OHAMA, S., 1941.—“Investigation on the incidence of *Wuchereria bancrofti* among the primary school children of Sirara in Yaeyama district, Okinawa Prefecture.” 40 (6), 1164–1168. [In Japanese: English summary p. 1168.]
- b. OHAMA, S., 1941.—“Observations on hookworm disease in Isigaki Island, Okinawa Prefecture. II. Studies on the mode of infection of hookworm among the population in Kabira village, especially on the relation of soil infection by hookworm larvae to occupation and habits of the population, domestic animals, soil and atmospheric phenomena.” 40 (7), 1212–1223. [In Japanese: English summary p. 1223.]

(513a) 24.04% of the children of Sirara (Formosa) harbour microfilariae of *F. bancrofti*. Of these 83% are light infections.  
R.T.L.

### 514—Tijdschrift voor Diergeneeskunde.

- \*a. VINK, H. H., 1941.—“Massale infectie met vrij in de buikholte aanwezige *Cysticerci tenuicollis* bij een varken.” 68 (3), 142–144.

(514a) In a pig, Vink found a very heavy infestation of *Cysticercus tenuicollis* free in the body cavity. Since the liver showed only lesions the size of a match-head, he thinks the invasion route must have been via the lymphatics. [From an abstract in Wien. tierärztl. Mschr., 29, p. 208.]  
B.G.P.

### 515—Tijdschrift over Plantenziekten.

- \*a. SCHUURMANS STEKHOVEN, J. H., 1941.—“Algemeene gezichtspunten aangaande het vraagstuk der plantenaaltjes.” 47 (1), 1–13.

### 516—Transactions of the Kansas Academy of Science.

- a. LEONARD, A. B. & BEAHM, E. H., 1941.—“Studies on the distribution of *Trichinella* larvae in the albino rat.” 44, 429–432.

### 517—Transactions of the Royal Society of South Australia.

- a. JOHNSTON, T. H. & MAWSON, P. M., 1941.—“Additional nematodes from Australian birds.” 65 (2), 254–262.
- b. JOHNSTON, T. H., 1941.—“Bather's itch (schistosome dermatitis) in the Murray Swamps, South Australia.” 65 (2), 276–284.
- c. JOHNSTON, T. H. & ANGEL, L. M., 1941.—“Life history of the trematode *Petasiger australis* n. sp.” 65 (2), 285–291.
- d. JOHNSTON, T. H. & ANGEL, L. M., 1941.—“The life history of *Echinostoma revolutum* in South Australia.” 65 (2), 317–322.

(517a) Ten new species of nematodes from Australian birds are described, viz., *Thelazia pittae* n. sp., *Chevreuxia australis* n. sp., *Trichostrongylus incertus* n. sp., *Seuratia marina* n. sp., *Eustrongylides phalacrocoracis* n. sp., *E. plotinus* n. sp., *Cosmocephalus jaenschii* n. sp., *Tetrameres australis* n. sp., *T. biziurae* n. sp. and *Habronema aegothales* n. sp.  
R.T.L.

(517b) Johnston carefully summarizes the now extensive literature of schistosome dermatitis and records its occurrence in the swamps of the Lower Murray, South Australia. The relation of these latter outbreaks to the snails *Amerianna pyramidata*, *A. pectorosa* and *Limnaea lessona* is discussed. *Austroilharzia terrigalensis* is recorded from *Larus novae-hollandiae* in St. Vincent Gulf. As *Cercaria pellucida* Bradley, 1926 is preoccupied the new name *C. bradleyi* is suggested; it is probably a plagioid. *C. greeri* Bradley appears to be a Strigeata.  
R.T.L.

(517c) A minute echinostome, *Petasisger australis* n. sp., is described from *Podiceps ruficollis novaehollandiae* and *P. poliocephalus* in Tailem Bend, South Australia. A cercaria named *C. gigantura* n. sp. is described, with its redia and metacercaria, as probably the larval stage of *P. australis*. This echinostome cercaria is compared with other large tailed forms.

R.T.L.

(517d) In South Australia *Echinostoma revolutum* develops in *Amerianna pyramidata* and *A. pectorosa*. The adult was obtained, by experimental feeding, in pigeons. Its occurrence in various Australian Anseriformes is recorded.

R.T.L.

#### 518—Vestnik Selskokhozyaistvennoi Nauki. Veterinariya.

- a. KOPIRIN, A. V., 1941.—“Diagnostic différentiel intravital des strongylatoses équines suivant le stade invasif.” 1941, No. 1, 77-84. [In Russian: French summary p. 80.]
- b. POLYANSKAYA, M. V. & SEDELNIKOVA, O. A., 1941.—“Contribution à l'étude de la biologie du *Dictyocaulus hadweni* Chapin—agent causal d'une maladie helminthique pulmonaire des rennes.” 1941, No. 1, 85-92. [In Russian: French summary p. 92.]
- c. ANTIPIN, D. N., 1941.—“Recherche des méthodes de déshelminthisation du fumier de cheval et du fumier de vache.” 1941, No. 2, 42-56. [In Russian: French summary p. 56.]
- d. BASHKIROVA, E. Y., 1941.—“Étude biologiques des *Anoplocephala perfoliata* Goeze, 1782.” 1941, No. 2, 57-67. [In Russian: French summary p. 67.]
- e. BOROVKOVA, A. M., 1941.—“Contribution à l'étude du cycle évolutif des agents de la thominxose des voies respiratoires des renards argentés.” 1941, No. 2, 68-74. [In Russian: French summary p. 74.]
- f. PETROV, A. M., 1941.—“Importance de l'invasion intrautérine dans l'épizootologie de la toxocarose des renards noirs-argentés.” 1941, No. 3, 84-92. [In Russian: French summary p. 92.]
- g. ANTIPIN, D. N., 1941.—“La thérapie de l'ascaridiose et de l'uncinariose des *Canis procyonoides* Gray.” 1941, No. 3, 93-97. [In Russian: French summary p. 97.]

(518a) Kopirin has studied the morphology of the eggs, and larvae of the first, second, and infective stages, of horse strongylids, and applies his results to differential diagnosis. The paper is illustrated by 30 line drawings.

A.E.F.

(518b) Polyanskaya & Sedelnikova's work on the bionomics of *Dictyocaulus hadweni*, a parasite of reindeer, includes artificial culture of the larvae, effect of environment, and the effect of various disinfectants on ova and larvae. As a result of their findings they recommend that deer should be treated during October and November by intra-tracheal injections, and that during the summer rotational grazing should be carried out.

A.E.F.

(518c) Antipin has carried out experiments on the killing of helminth ova and larvae in horse and cattle manure. He concludes that ova and larvae are all killed in horse manure mixed with straw litter, and also in horse manure mixed with cattle manure in a proportion of 1:4. Ova and larvae are not killed in cattle manure alone. The addition of 2% superphosphate and 2 to 4% phosphorite to the manure greatly reduces the nitrogen loss.

A.E.F.

(518d) Bashkirova has found all stages of development of *Anoplocephala perfoliata* from the egg to the fully formed cysticercoid in oribatid mites. Details of the specific names of the mites concerned are not yet complete, but it is known that earlier stages of development are found most frequently in *Galumna obvius* and *G. nervosus*, whilst later stages are found chiefly in *Schelorbates laevigatus* and *S. latipes*. Later stages are also found in *Archipteria* sp. and in the families Liacaridae and Carabodidae. Experimental infections of mites with *A. magna* and *Paranoplocephala mamillana* have shown that *Galumna obvius*, *Allogalumna longiplumus*, *Schelorbates laevigatus*, and *S. latipes* act as intermediaries for these worms. The paper includes other details on the bionomics of the worms, and the collection and culturing of mites.

A.E.F.

(518e) As a result of his researches Borovkova refutes Christenson's statement [see Helm. Abs., Vol. VII, No. 272 I] that *Thominx aërophilus* (= *Capillaria aërophila*) has a direct life-cycle. He shows that the earthworms *Lumbricus rubellus*, *L. terrestris* and *Allophora caliginosa* act as intermediaries for *T. aërophilus*. Development of the worm to sexual maturity in dogs, cats and foxes takes 25 to 29 days. On the basis of this life-cycle recommendations are made for the control of the parasite in silver foxes and other fur-bearing animals.

A.E.F.



(518f) Petrov reports that *Toxocara canis* infection is very common in silver foxes in Russia. Migrating larvae were found in 6 out of 22 still-born cubs. Of 90 one-year-old foxes, 16.7% were infected; of 56 2-year-olds, 14.3%; and of 18 3-year-olds, 5.5%. No infections were found in foxes of 4 years old and upwards. Recommendations are made for the treatment and control of the disease. A.E.F.

### 519—Veterinary Medicine.

- a. LEKWA, C. L., 1941.—“Phenothiazine poisoning in swine.” 36 (9), p. 448.
- b. EVELETH, D. F. & HILSTON, N. W., 1941.—“Contributing factors causing death in sheep infested with the nodular worm.” 36 (9), 449–451.
- c. TOYNTON, C., 1941.—“Effects of phenothiazine on the equine blood picture.” 36 (9), p. 481.

(519a) Lekwa reports transient paralysis on the 1st or 2nd day after treating pigs with [an unstated dose of] phenothiazine. There were few deaths and no anaemia or high temperature. B.G.P.

(519b) In non-resistant sheep *Oesophagostomum columbianum* larvae spend about 5 days in the intestinal mucosa, causing diarrhoea when they return to the lumen. In resistant sheep the larvae become encapsulated in the submucosa and provoke nodule formation. Eveleth & Hilston find that anthelmintics do not kill the intra-nodular forms, and that the nodules weaken the intestinal wall so that rupture and consequent peritonitis are apt to follow upon feeding with alfalfa (which is gas-producing) or upon lambing. B.G.P.

(519c) Toynton reports a slight and temporary decrease in the red and white cell counts and in blood haemoglobin, in two Percheron horses given each 72 g. of phenothiazine. Blood counts were made daily for 8 days. B.G.P.

### 520—Virginia Journal of Science.

- \*a. THRELKELD, W. L., 1941.—“Notes on copulation of certain nematodes.” 2 (1), 31–34.
- b. THRELKELD, W. L. & HENDERSON, M. E., 1941.—“Spermatogenesis and oogenesis in *Haemonchus contortus*, a nematode worm parasitic in the fourth stomach of ruminant animals.” [Abstract.] 2 (6) [Virginia Academy of Science Proceedings for the year 1940–1941], p. 172.
- c. THRELKELD, W. L., 1941.—“Helminth parasites of sheep.” 2 (6) [Virginia Academy of Science Proceedings for the year 1940–1941], 172–173.
- d. BRITT, H. G., 1941.—“Preliminary cytological observation in trematodes.” [Abstract.] 2 (6) [Virginia Academy of Science Proceedings for the year 1940–1941], p. 186.

### 521—Vrachebnoe Delo.

- a. GOLDENBERG, E. Y. & ZHUPANENKO, I. F., 1941.—[Clinical aspects of trichinosis.] 23 (3), 213–214. [In Russian.]
- b. BARSHCHEVSKAYA, V., 1941.—[Case of chronic cholecystitis in connection with double infestation with *Strongyloides stercoralis* and *Lambia intestinalis*.] 23 (4), 303–304. [In Russian.]
- \*c. GOLDBERG, A. Z. & FOMENKO, M. M., 1941.—[A case of hydatidosis of the kidney.] 23, p. 455. [In Russian.]

### 522—Wasmann Collector.

- \*a. HUGHES, R. C., BAKER, J. R. & DAWSON, C. B., 1941.—“The tapeworms of reptiles, Part II. Host catalogue.” 4 (3), 97–104.
- \*b. POLK, S. J., 1941.—“*Dilepis hillii*, a new dilepidid cestode from a little blue heron.” 4 (4), 131–133.
- \*c. BROCK, M. E., 1941.—“*Hymenolepis stollii*, a new hymenolepidid cestode from the pintail duck.” 4 (4), 135–137.

### 523—Yedeot Leenyaney Higiena Ubziyut.

- a. WITENBERG, G., 1941.—[Ancylostomiasis in Palestine.] 1941, p. 49. [In Hebrew.]

### 524—Zeitschrift für Fleisch- und Milchhygiene.

- \*a. TEIKE, 1941.—“Zur Beurteilung mit Fadenwürmern durchgesetzter Fische bzw. Fischfilets.” 51, p. 222.

## 525—Zeitschrift für die Gesamte Neurologie und Psychiatrie.

- \*a. KULKOW, A. E., 1941.—“Zur Symptomatologie und Diagnose der Hirncysticercose ; zur Klinik der Hirncysticercose.” 172, 642–656.
- \*b. KULKOW, A. E., 1941.—“Zur Symptomatologie und Diagnose der Hirncysticercose ; intravitale Diagnose.” 172, 657–666.

## 526—Zeitschrift für Hygienische Zoologie.

- \*a. ORBE, G., 1941.—“Untersuchungen an Breslauer Ratten und ihren Parasiten. III.” 33, 4–10.

(526a) Orbe records *Hymenolepis diminuta*, *H. nana*, *Trichuris muris*, *Trichosomoides crassicauda*, *Heterakis spumosa* and *Syphacia obvelata* from wild rats in Breslau. [From an abstract in Zbl. Bakt., I. Abt. Ref., 141, p. 487.] A.E.F.

## 527—Zeitschrift für Infektionskrankheiten, Parasitäre Krankheiten und Hygiene der Haustiere.

- a. BAUDET, E. A. R. F., 1941.—“Über die Resistenz des Meerschweinchens gegenüber wiederholten Infektionen mit *Ascaris lumbricoides* vom Schwein.” 58 (1/2), 79–93.
- b. BAUMANN, R. & KMENT, A., 1941.—“Über das Vorkommen und die pathogene Bedeutung der *Onchocerca reticulata*.” 58 (1/2), 94–104.

(527a) Baudet has carried out experiments to determine the resistance of guinea-pigs to lethal doses of *Ascaris lumbricoides* (pig strain), following upon repeated infections with smaller numbers of eggs. Infections of 100, 200 and 400 eggs at monthly intervals did not produce resistance to a dose of 40,000 eggs three months later. Guinea-pigs given repeated infections of 15,000 eggs survived a dose of 30,000 eggs after an interval of one month: in a further experiment animals given successive doses with 6,500, 13,000 and 26,000 eggs survived an infection of 30,000 eggs five months later. A.E.F.

(527b) Baumann & Kment report two cases of *Onchocerca reticulata* from fistulous withers in equines, the first in a mule in Turkey and the second in a horse in Austria. Both are new geographical records. The pathological anatomy of the condition is discussed. A review of German work on *Onchocerca reticulata* is included. A.E.F.

## 528—Zeitschrift für Parasitenkunde.

- \*a. SZIDAT, L., 1941.—“Über die Caryophyllaeiden-Gattung *Khawia* H. F. Hsü 1935 und eine neue Art dieser Gattung, *Khawia baltica* n. spez.” 12 (2), 120–132.
- b. LEHMENSICK, R. & SENADISAYA, P., 1941.—“Beiträge zur Epidemiologie der Trichinose.” 12 (3), 340–361.
- c. SCHUURMANS STEKHOVEN, jr., J. H., 1941.—“Neue Beobachtungen an *Strongyloides stercoralis* Bay.” 12 (3), 404–418.

(528b) Lehmensick & Senadisaya give details of the general symptoms and tissue changes in rats caused by *Trichinella spiralis*. Attempts to transfer infection from rat to rat by means of muscle transplants failed. It was found that *T. spiralis* may spread among rats by the eating of infected animals before the 5th day after infection, when the small intestine harbours the infective agents, or after 12 days when the infection is derived from the muscles. The epidemiological significance of these results is discussed. W.P.R.

(528c) Schuurmans Stekhoven considers that the bulbous region of the oesophagus of the rhabditiform larva of *Strongyloides stercoralis* corresponds to the posterior end of the oesophagus of the infective form, for the exposure of the latter to nicotine decoctions caused the formation of a bulb in the oesophagus. The movements of the filariform larvae in cold (boiled and unboiled) soap suds are described. After exposure to the suds a bladder just anterior to the excretory pore was seen. Exposure to 5% potassium hydroxide did not give rise to bladder formation. The actions (the most marked of which was the paralysis of the caudal region) of the larvae in chloral hydrate and nicotine decoction are described. Spirally coiled filariform larvae and embryos in the eggs were stimulated to move by exposure to light. Desiccation of the larvae proceeded by two stages. First, fluid was removed from between the sheath and



the larva. The addition of water, in this case, restored activity. Later, the removal of fluid from the larva itself, leading to death, was noted.

W.P.R.

### 529—Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz.

- a. GOFFART, H., 1941.—“Verbreitung und Schädigung des Stockälchens (*Anguillulina dipsaci*) in Schleswig-Holstein.” 51 (2), 97-102.

(529a) Goffart deals with the occurrence and damage caused by the stem eelworm, *Anguillulina dipsaci*, to crops in Schleswig-Holstein. The chief crop attacked is rye; many records of attack come from areas of light, sandy, slightly acid soils. Incidence of attack seems to be most evident in April. The parasite is most abundant in the top 15 cm. of the soil at this time of the year. Goffart found the following crops and weeds capable of serving as hosts of the parasite: fodder beet, corn marigold, winter and summer rye, winter and summer wheat, couch-grass, winter and summer barley, oats, maize, red clover, white clover, alsike clover, trefoil, lucerne, garden pea, broad beans, onion, daffodil, flax, buckwheat, potato, and carrot. Of the foregoing, rye and buckwheat are heavily invaded and show marked symptoms. Couch-grass, maize and broad beans are moderately affected. Goffart describes the symptoms shown by several of these hosts and mentions their significance as reservoir hosts. Another race of the stem eelworm in Schleswig attacks white clover (*Trifolium repens*). Though not severely affecting red clover this race appears to be particularly dangerous to a pasture clover called “Morsoe white clover”.

T.G.

### 530—Zeitschrift für Vergleichende Physiologie.

- \*a. NEUHAUS, W., 1941.—“Beiträge zur Frage der Wirtsfindung des *Miracidium* von *Fasciola hepatica*.” 28, 562-579.

(530a) Neuhaus found that miracidia of *Fasciola hepatica* show positive rheotaxis to the ciliary currents set up by the epithelium of snails. They show positive chemotaxis at a distance of 12 to 16 cm. from *Limnaea truncatula* and at shorter distances from other species of *Limnaea*. [From an abstract in Jber. Vet.-Med., 69, p. 289.]

B.G.P.

### 531—Zentralblatt für Bakteriologie. Abteilung I. Originale.

- a. VOGEL, H., 1941.—“Ueber den Einfluss des Geschlechtspartners auf Wachstum und Entwicklung bei *Bilharzia mansoni* und bei Kreuzpaarungen zwischen verschiedenen *Bilharzia*-Arten.” 148 (2/3), 78-96.

(531a) Infecting mice with males only, with females only, and with both sexes, respectively, of *Schistosoma mansoni*, Vogel finds that, while the size of male worms is not affected, female worms are much smaller in the absence of males, and remain sexually immature. In contrast, it has been known since 1928 that unpaired males of *S. japonica* are subnormal in size. These effects are not due to hormones circulating in the host's blood. Vogel has also established experimentally in mice the various possible crosses between the three species of human schistosomes. All these crosses are fertile, producing eggs of the form characteristic of the female, but the effect on the growth of the males is variable. The cross-paired females were all larger than unpaired females but not quite as large as self-paired females.

B.G.P.

### 532—Zentralblatt für Chirurgie.

- \*a. BADER, L., 1941.—“Ein Fall von Leberegelerkrankung beim Menschen.” 68, 1581-1584.

### 533—Zoologica. New York.

- a. WILLEY, C. H., 1941.—“The life history and bionomics of the trematode *Zygocotyle lunata* (Paramphistomidae).” 26 (2), 65-88.

(533a) Experimental proof that the definitive host of *Zygocotyle lunata* can be either water-bird or mammal has been furnished by Willey in his study of the development of this species. Naturally infected snails, *Helisoma antrosum*, produce cercariae which encyst in the open. Cysts fed to ducks, rats, and a sheep produced mature adults in the caecum, and the

eggs from these were fed to the snails and the cycle repeated. Miracidia produce sporocysts in which rediae are formed, these giving rise to a single daughter redia and cercariae. Immature cercariae leave the redia and continue development in the lymph spaces of the snail. Tailed cercariae encyst in the open as metacercariae but no further development occurs until they are ingested by a definitive host. In heavy infestations by worms of the same age, the average size is less, but the size variation is greater, than in light infestations. Size variation is greater in young worms and decreases with age. An established infestation of *Z. lunata* in rats and ducks prevents superinfection with this species.

N.G.S.

## NON-PERIODICAL LITERATURE.

534—\*ARCE, M. & ARCE, F., 1941.—“Estudio radiológico de la equinococosis pulmonar. Colección española de monografías médicas.” Barcelona, 75 pp.

535—CULBERTSON, J. T., 1941.—“Immunity against animal parasites.” New York, x+274 pp.

536—\*FILIPJEV, I. N. & SCHUURMANS STEKHOVEN, jr., J. H., 1941.—“A manual of agricultural helminthology.” Leiden, xv+878 pp.

537—\*LANGER, H., 1941.—“Untersuchungen über die Veränderung des Artenverhältnisses der Pferdestrongyliden nach Allegan-Gabe.” Dissertation, Hannover.

538—\*MOREL, C. J. L., 1941.—“Quistes hidatídicos del bazo.” Thesis, Buenos Aires, r86 pp.

[See also above No. 372a.]

539—NEW YORK STATE TRICHINOSIS COMMISSION, 1941.—“Meat for millions. Report of the New York State Trichinosis Commission.” Albany, N.Y., 282 pp.

This Legislative Document of 282 pages covers a wide field and presents reports by Senators and scientists, original matter and reproductions of articles from the lay and medical press. It deals with the story of trichinosis, its prevalence, the relation of garbage to trichinosis and the requirements imposed by various States for the control of infective material. There are 49 tables of statistics, 16 text figures and 5 charts. The last of 3 appendixes outlines proposed legislation by Bills covering garbage feeding, processing of pork, licensing of slaughterhouses, and meat inspection. An article by Dr. W. H. Wright, on the incidence of human infection in U.S.A. as indicated by postmortem examinations, shows that of 4,741 human diaphragms examined, 779, i.e. 16.4%, were found to be positive. Of these diaphragms 207 came from States in which clinical trichinosis had never been reported; nevertheless 35, i.e. 16.9% were positive.

R.T.L.

540—\*PETROV, A. M., 1941.—[Helminthiasis in fur-bearing animals.] Moscow. [In Russian.]

541—\*RUSSO, A. G., 1941.—“Secuelas cavitarias hidatídicas en el pulmón.” Thesis, University of Buenos Aires, Frascoli, 78 pp.

542—An Introduction to Nematology. Section II, Part II. Edited by J. R. Christie. Babylon, N.Y., pp. 243-372.

- a. CHITWOOD, B. G., 1941.—“Life history. General discussion.” pp. 243-245.
- b. CHRISTIE, J. R., 1941.—“Life history (zooparasitica). Parasites of invertebrates.” pp. 246-266.
- c. CHANDLER, A. C., ALICATA, J. E. & CHITWOOD, M. B., 1941.—“Life history (zooparasitica). II. Parasites of vertebrates.” pp. 267-301.
- d. CAMERON, T. W. M., 1941.—“Epidemiology and sanitary measures for the control of nemtic parasites of domesticated animals.” pp. 302-308.
- e. CORT, W. W., CRAM, E. B. & AUGUSTINE, D. L., 1941.—“Epidemiology and sanitary measures for the control of nemtic parasites of man.” pp. 309-331.



- f. WRIGHT, W. H. & HARWOOD, P. D., 1941.—“Anthelmintic medication for nematode disease of domestic animals and man.” pp. 332–349.
- g. ACKERT, J. E. & WHITLOCK, J. H., 1941.—“Feeding habits of nematode parasites of vertebrates.” pp. 350–355.
- h. BRAND, T. VON & JAHN, T. L., 1941.—“Chemical composition and metabolism of nematode parasites of vertebrates and the chemistry of their environment.” pp. 356–371.

(542a) B. G. Chitwood briefly discusses general matters involved in nematode life-histories, from comparatively simple processes, as in the case of free-living forms, to more complicated procedures involving alternation of hosts, as in numerous animal parasitic forms. The chapter ends with a useful table in which nematodes are classified according to life-history under two main heads: (i) VAGANTIA (free-living nematodes). (ii) PARASITICA, (a) Phytoparasitica (nematode parasites of plants), (b) Zooparasitica (nematode parasites of animals). In this last section groupings are made under Seurat's terms monoxenous (one animal host in life-cycle) and heteroxenous (two or more animals in life-cycle). T.G.

(542b) Christie deals with the life-histories of nematode parasites of invertebrates and considers such forms as regularly spend part of the life-cycle within the bodies of invertebrates, regardless of the precise character of the association. He deals first with noxious parasites and semi-parasites such as *Rhabditis maupasi* (larvae of which occur in the nephridia and coelom of earthworms) and then passes on to *Neoaplectana* spp. and other genera and species occurring in beetles. Parasites of the alimentary tract are next considered and then, in a much longer section, body cavity and tissue parasites. In this section consideration is given to the members of the following families: Myenchidae, Drilonematidae, Tetradonematidae, Mermithidae and Allantonematidae. T.G.

(542c) Chandler, Alicata & M. B. Chitwood deal with the life-histories of nematode parasites of vertebrates. There is a general introduction in which they discuss questions such as larval migrations, encapsulation of larvae and transport hosts, ending with a table summarizing the chief types of life-cycle. Life-histories of the most important genera and species are then dealt with under superfamilies and families, commencing with the Rhabditoidea (*Strongyloides* and *Rhabdias*) and ending with the Trichuroidea and *Diectophyme renale*. T.G.

(542d) Cameron summarizes the various methods of controlling nematode parasites of domesticated animals at different stages in the life-cycle. Thus, he deals with: (i) physical and chemical factors lethal to eggs before the infective stage is reached; (ii) physical, chemical and agronomic factors directed against infective eggs or larvae; (iii) measures to prevent ingress into the host of the infective stage, and to destroy vectors; and (iv) the prophylactic use of anthelmintics. B.G.P.

(542e) The pathology, epidemiology and control of the principal diseases due to nematodes are briefly described. Cort deals with hookworms, *Ascaris*, *Trichuris* and *Dracunculus*, Cram with *Trichinella* and *Enterobius*, and Augustine with the filarial worms. Cram also summarizes diagnostic methods for *Trichinella* and *Enterobius*. A 15-column bibliography is arranged under parasites. B.G.P.

(542f) Wright & Harwood discuss the mode of action of anthelmintics, generally and in relation to chemical structure, and the principles of medication. Then, under hosts, they briefly describe the drugs and dosages appropriate to the various nematode infestations of man and the domesticated animals. B.G.P.

(542g) Ackert & Whitlock review the literature dealing with the diet and digestion of nematode parasites of vertebrates. The parasites are grouped and discussed according to their location in the host and their method of feeding. An account of the food requirements of larval parasitic nematodes is included. W.P.R.

(542h) Von Brand & Jahn give an account of the chemical nature of the environment (dealing largely with intestinal fluids) of nematode parasites of vertebrates. The carbohydrate, ether extractable, nitrogenous and inorganic substances found in these parasites are listed and discussed. The general metabolism of adults, eggs and larvae is reviewed in detail. W.P.R.

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## NOTE.

In all indexes the reference is to the serial numbers and not to the pages. In the Indexes of Authors and Subjects numbers in **bold type** indicate abstracts and numbers in Roman type refer to title-only entries.

To save paper the Index of Periodicals has been omitted, and the Author Index has been compiled on a different system. There are no cross-references to show joint-authorship, but authors of joint papers are listed individually. Thus, the entries in the Author Index for a paper by "Brown, B., Jones, A. & Smith J." would consist of the three separate entries, "Brown, B.", "Jones, A." and "Smith, J."

In the Index of Subjects, alphabetization is under the first word (e.g., "*Acer* sp." before "*Acerina* sp."). Under the generic name of a helminth the following order is observed: papers on the genus as such; papers on undefined species; papers on new and defined species, e.g.,

*Capillaria*  
     — spp.  
     — *aerophila*  
     — *amarali* n. sp.

In cross-entries under names of hosts, the specific names of new species of helminths are omitted. *Anthelmintics* are listed under that word and also under the name of the parasite or disease.



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## CORRIGENDA.

Serial  
No.

- 80a (Abstract) Line 3 For "*columbriformis*" read "*colubriformis*"  
 96f (Abstract) Line 1 For "Schmid" read "Schmidt"  
 107a (Title) For "Kotlán, A." read "Kotlán, S."  
 163a (Title) Line 2 For "114, p. 214" read "14, 214-222"  
 173i (Abstract) Line 1 For "as" read "at"  
 173i (Abstract) Line 3 For "cylicostomet" read "cylicostomes"  
 233c (Title) For "67, p. 1289" read "67 (47), 1289-1292"  
 252 (Journal title) For "Journal of Medicine" read "Medichniy Zhurnal"  
 252a (Title) Line 3 For "253-266" read "253-261"  
 269e (Title) For "p. 1235" read "1235-1238"  
 318c (Abstract) Line 3 For "*lissoni*" read "*lessoni*"